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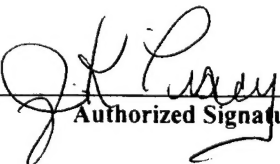
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FORT SHERIDAN, ILLINOIS - BASE CLOSURE AND REALIGNMENT

FINAL ENVIRONMENTAL IMPACT STATEMENT

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FORT SHERIDAN, ILLINOIS - BASE CLOSURE AND REALIGNMENT
FINAL ENVIRONMENTAL IMPACT STATEMENT

RESPONSIBLE AGENCY: U.S. Army Forces Command

ABSTRACT: The action evaluated in this document includes the withdrawal from and closure of the assets at Fort Sheridan, Illinois; the disposal and potential reuse of installation real property; and the relocation of major units to Fort Benjamin Harrison, Indiana (the primary receiving installation) and to a number of secondary receiving locations. This action is in accordance with the Defense Authorization Amendments and Base Closure and Realignment Act, Title II, Public Law 100-526, and recommendations of the Defense Secretary's Commission on Base Realignment and Closure.

This Environmental Impact Statement has been prepared to identify the effects of the planned action on the natural, social and cultural environment at Fort Sheridan, and installations where Fort Sheridan services will be relocated. The document also addresses potential future uses for property to be disposed of at Fort Sheridan.

The Fort Sheridan Base Closure Draft Environmental Impact Statement (DEIS) was distributed on May 18, 1990, and the Notice of Availability appeared in the Federal Register on the same date. The notice initiated a 45 day comment period, which ended on July 2, 1990. Public hearings were held on June 11, 1990 at Lawrence Central High School Auditorium, Indianapolis, Indiana; and on June 21, 1990 at Northwood Junior High School Auditorium, Highland Park, Chicago. The results of the formal comment process have been documented in Section 5.5 of this Final Environmental Impact Statement (FEIS).

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Summary

SUMMARY

SU.1 Regulatory Background

The Defense Secretary's Commission on Base Realignment and Closure (Commission) was chartered on May 3, 1988 by the Secretary of Defense to develop recommendations regarding closure and realignment of United States military installations. Subsequently, the Defense Authorization Amendments and Base Closure and Realignment Act (Public Law 100-526) endorsed the Commission's recommendations. On December 29, 1988, the Commission recommended the realignment and closure of 145 military installations, including the closure of Fort Sheridan, Illinois. On January 8, 1989, the Secretary of Defense approved these recommendations and announced that the Department of Defense would implement them. The Base Closure and Realignment Act requires the implementing actions of the base closure and realignment process to conform to the provisions of the National Environmental Policy Act (NEPA), subject to certain modifications (See Section 1.1).

SU.2 The Planned Action

The action to be evaluated in this Environmental Impact Statement (EIS) includes the closure of Fort Sheridan, Illinois (with the exception of approximately 100 acres of land to be retained for Reserve Component activities), and the relocation of major units to Fort Benjamin Harrison, Indiana. In addition, some missions and related personnel will be relocated to Fort M^cCoy, Wisconsin; to leased space in the Chicago area; and to several other locations as illustrated in Chapter 1, Table 1-1.

Activities at Fort Sheridan are primarily related to administrative and recruiting missions, and do not involve large-scale field training exercises. Headquarters 4th U.S. Army at Fort Sheridan is scheduled to relocate during Fiscal Year (FY) 1993. Headquarters U.S. Army Recruiting Command is scheduled to complete their transfer to Fort Benjamin Harrison during the summer of 1993.

The closing installation (Fort Sheridan) contains approximately 700 acres of land, located on the west shore of Lake Michigan in Lake County, Illinois, approximately 25 miles north of the Chicago Business District. The primary receiving installation (Fort Benjamin Harrison) is located in the northeast sector of Marion County, Indiana, approximately 12 miles northeast of downtown Indianapolis. Fort M^cCoy is located in the northern portion of Monroe County, in west central Wisconsin.

SU.3 Implementation Actions Considered

As discussed in Section 1.1 of this document, the Base Closure and Realignment Act modified NEPA provisions to the extent that this document shall not consider the need for closing or realigning installations selected by the Commission; the need for transferring functions to selected receiving installations; or alternative military installations to those selected. However, this EIS does consider a number of alternative actions regarding how the Fort Sheridan closure

and realignment action will be implemented. Potential implementation actions have been fully described in Chapter 2, and are summarized below.

SU.3.1 Closure of Fort Sheridan

The closure of Fort Sheridan has been evaluated in this EIS as a separate and distinct action. The closure action includes the inactivation of the existing garrison operations, the transfer or elimination of approximately 1,000 military and 1,700 civilian jobs, the placing of property (prior to disposal) in temporary caretaker status; the transport of material, equipment and personnel to selected receiving installations; and the continued operation of a Reserve Component Area on existing Fort Sheridan property. Approximately 250 military and 250 civilian personnel will remain in the area. In addition, it is anticipated that the existing cemetery will be transferred to the Department of Veterans Affairs for continued operation and maintenance.

Seven areas have been defined and considered by the Army as potential sites for the Reserve Component Area to remain at Fort Sheridan. To date, two of these areas have been eliminated from further consideration. Four of the remaining five alternatives are located in the southwestern corner of the existing installation, and will result in similar implementation impacts. The fifth potential area is located in the northwestern corner of the installation adjacent to the existing Reserve Center. Each of the future Reserve Component Area plans assumes continued operation of the existing 14 acre Reserve Center. The acreage of the five site configurations still under consideration ranges from an additional 60 to 90 acres (approximately) as described and illustrated in Section 2.2.2.

SU.3.2 Fort Sheridan Reuse Alternatives

A number of generalized reuse alternatives for Fort Sheridan were considered during the preparation of this EIS. Three reuse concepts were retained for further consideration including: 1) Resort Conference Center/Residential Use, 2) Mixed Use, and 3) Residential Use. As discussed in Section 2.3.1, a Fort Sheridan Commission has been established with the assistance of the Office of Economic Adjustment (OEA). The reuse plan ultimately developed by the Fort Sheridan Commission, the general reuse alternatives identified in this EIS, and other plans that are likely to be forthcoming will all be considered by the Department of Defense prior to the disposal of property at Fort Sheridan.

SU.3.3 Fort Benjamin Harrison Realignment Action

Approximately 650 military and 700 civilian jobs will be transferred to Fort Benjamin Harrison as a result of the closure of Fort Sheridan. In addition, Fort Benjamin Harrison will receive a net increase in average daily student load of 109; and a net increase of approximately 20 personnel from Fort Jackson. In order to support these transfers, a number of building and support facility projects will be constructed at Fort Benjamin Harrison. Alternative siting concepts that have been eliminated from further consideration, and realignment construction projects that are still under consideration are discussed in Section 2.4.

SU.3.4 Fort M^cCoy Realignment Action

Approximately 20 military and 150 civilian jobs will be transferred to Fort M^cCoy as a result of the closure of Fort Sheridan. This action will require demolition of two existing buildings, and construction of a new building to accommodate relocated personnel as discussed in Section 2.5.

SU.3.5 Other Realignment Actions

There are a number of other relatively minor relocations associated with the closure of Fort Sheridan. Small numbers of personnel (See Table 1-1, Chapter 1) are to be relocated to various Health Services Command facilities at six locations (in addition to Fort Benjamin Harrison, and Fort M^cCoy). Plans also call for relocation of personnel to leased office space in Chicago, the Great Lakes Naval Station, the Savanna Army Depot and Fort Leavenworth. The assignment of personnel to these locations will not involve any new construction, and no significant impacts are anticipated. Therefore, these minor actions will not be further addressed or evaluated in this document.

SU.4 Summary of Environmental Consequences

Figure SU-1 has been prepared to provide a graphic summary of beneficial and adverse impacts of each element of the proposed action, as related to each of the environmental factors considered in this EIS. Graphic patterns have been used to indicate the type (beneficial or adverse), and extent (potentially significant, not significant, or neutral) of impact that is anticipated under each implementing action. These patterns have also been located within each block to indicate their relative degree of impact, ranging from a potentially significant beneficial impact on the far left side of each scale, to a potentially significant negative impact on the right hand side. The reader may use this graphic summary to identify key impact areas and evaluate the relative impacts of various implementation actions and alternatives. Figure SU-1 also provides references to text sections directly related to each item in the matrix.

SU.4.1 Major Impacts Related to Closure Action

As illustrated in Figure SU-1, Column A, one distinct element of the closure action involves the deactivation, realignment (personnel and equipment transfer or elimination) and disposal of Fort Sheridan property. This aspect of the closure action will have a minimal beneficial impact on the natural environment due to discontinuation of military activities, a reduction in the human use of the area and its resources, and the elimination of the need for further military development of the area to be vacated. The action will also have minimal beneficial impacts to the human environment including a reduction in noise, solid waste and both on and off-post vehicular traffic.

Economic impacts in the Lake County region relating to the closure of Fort Sheridan have been estimated to involve a decrease in regional sales volume of \$31.3 million, a decrease in regional employment of 2,964 person-years, and a decrease in regional income of approximately \$68.0 million. However, these impacts are not considered to be significant to the region as discussed in Section SC.4.8.

The closure of Fort Sheridan will have a negative impact on area retirees associated with reduced availability of on-post medical services, commissary and post exchange services, recreational facilities, the installation chapel and community club. This loss will be partially offset by availability of other facilities at other military installations in the region.

The second distinct element of the closure action involves various alternative sites for the Reserve Component Area. As discussed in Section 2.2.2, five areas are currently under consideration for this use including one alternative that proposes use of approximately 60 acres in the northwest corner of the installation (Area D); and four alternatives that propose the use of 60-90 acres in the southwest corner of the installation. The relative environmental impacts of the northern versus southern alternatives have been illustrated in columns B and C of Figure SU-1.

The retention and expansion of the Reserve Center will mitigate the negative impact on the economy of the area in that it effectively reduces the number of jobs and related activity that would be lost to the region if all activity were to be eliminated. Both the northern and southern area alternatives will have a minor negative impact on visual and aesthetic values as viewed from adjacent land areas. Continued operations at the Reserve Center will also result in some noise generation and minor handling and storage of some hazardous materials. The northern and southern area alternatives both call for construction of new or expanded facilities. This construction has the potential to impact natural resource values at either site. In regard to the southern area alternatives, these impacts are not considered to be significant due to the previously disturbed nature of the area, and its distance from significant natural resources. The northern alternative (Area D) would require development of more relatively natural or landscaped areas, and construction on both sides of the upper reaches of Jane's Ravine. The EIS concludes that construction within Area D has a relatively higher potential to have an indirect negative impact on water resources and threatened and endangered species known to occur in the lower reaches of Jane's Ravine. However, these impacts can be mitigated through careful site planning, design and construction, and are therefore not considered to be significant.

SU.4.2 Major Impacts Related to the Reuse of Fort Sheridan

This EIS describes three general concepts for the reuse of property to be disposed of at Fort Sheridan. The relative type and magnitude of impacts associated with these alternatives are graphically illustrated in Figure SU-1. The impacts relating to two of the concepts including the Resort Conference/Residential Use and the Mixed Use developments are very similar. These concepts have a high potential to provide beneficial economic impacts to the local area and the region due to the diverse range of activities that would be developed. Both concepts offer strong potential to maintain the character and integrity of the existing historic district, and are capable of providing a source of funds adequate to maintain this critical resource. Conversely, these

concepts are likely to require a relatively higher level of new construction and property redevelopment, which has the potential to have adverse impacts on the natural environment. As shown in Figure SU-1, no significant adverse impacts are expected to occur based on the assumption that detailed reuse plans will be developed in a manner that is sensitive to critically important natural resources in the area.

The third reuse concept is based on utilization of the vast majority of the available land for a wide range of residential uses. This concept is likely to result in less direct impact to the natural resources of the area due to less need for expanded infrastructure and support services and a lower density of development. It would also be the most compatible with current zoning and land use patterns of the communities adjacent to Fort Sheridan. This concept is least capable of providing for general public access to the lakeshore. It is also less capable of providing a mechanism to ensure the long term protection of unique habitat areas and the historic district.

SU.4.3 Major Impacts Related to Fort Benjamin Harrison Realignment Action

The realignment of approximately 1,350 personnel, and an average daily increase of 109 students to Fort Benjamin Harrison (including transfers from Fort Sheridan and net transfers from Fort Jackson) will have a beneficial impact on the area economy. Specifically, this action is expected to increase regional sales volume by approximately \$186.8 million, increase regional employment by 3,092 person-years, and increase regional income by \$73.9 million. The regional area of influence for Fort Benjamin Harrison includes Marion, Hamilton, Madison, Hancock and Johnson counties.

Adverse impacts relating to the realignment include minor temporary impacts on biological resources due to proposed construction activities, impacts on certain aspects of existing utility systems that may require on-post improvements, increases in operating noise, and the volume of hazardous and solid waste handled and generated by the installation. (See Figure SU-1, Column G.) These impacts are not considered to be significant as discussed in appropriate text sections. The EIS also concludes that the realignment action at Fort Benjamin Harrison may result in a significant impact to both on and off-site roadways and intersections. This impact is discussed in Section H.4.7.4.

SU.4.4 Major Impacts Related to Fort M^cCoy Realignment Action

The proposed action calls for the realignment of approximately 20 military and 150 civilian personnel from Fort Sheridan to Fort M^cCoy. This action is expected to have a beneficial impact to the area economy including increases in regional sales, and regional income of \$15.8 million and \$6.1 million, respectively; and an increase in regional employment of 382 person-years. The regional area of influence for Fort M^cCoy has been defined to include all of Monroe County. Given the rural environment of the Fort M^cCoy area, the EIS concludes that the anticipated changes in population in the Monroe County area may be significant as discussed in Section M.4.8.4.

Adverse impacts at Fort M^cCoy are expected to be minimal, and are generally limited to temporary impacts on the natural environment associated with the proposed demolition of two buildings, and the construction of one new administrative building (See Figure SU-1, Column H).

SU.5 Public and Agency Coordination

The coordination process for the planned action began on May 8, 1989, when the Department of the Army published a Notice of Intent in the Federal Register, announcing that an EIS would be prepared. Public scoping meetings were held at Fort Sheridan and Fort Benjamin Harrison as discussed in Section 1.5. Documentation of other coordination efforts, including comments received from the formal review of the Draft EIS, and related responses, has been included in Chapter 5.

FIGURE SU-1 (Page 1 of 3)
SUMMARY OF ENVIRONMENTAL CONSEQUENCES
FORT SHERIDAN - BASE CLOSURE AND REALIGNMENT

Implementation Action Environmental Factor	CLOSURE OF FORT SHERIDAN			Resort Con Residenti:
	Deactivation, Re- alignment, & Storage	Reserve Center (N. Area D)	Reserve Center (S. Areas A, B, C & G)	
	A	B	C	
SEE LEGEND				
PHYSICAL ENVIRONMENT				
1. CLIMATE	 S.3.3.1, P. 3-2 & SC.4.3.1, P. 4-2			SR.4.3.1, P. 4-1
2. TOPOGRAPHY	 S.3.3.2, P. 3-2 & SC.4.3.2, P. 4-2			SR.4.3.2, P. 4-1
3. GEOLOGY AND MINERAL RESOURCES	 S.3.3.3, P. 3-2 & SC.4.3.3, P. 4-2			SR.4.3.3, P. 4-1
4. SOILS	 S.3.3.4, P. 3-3 & SC.4.3.4, P. 4-2			SR.4.3.4, P. 4-1
5. AIR QUALITY	 S.3.3.5, P. 3-3 & SC.4.3.5, P. 4-3			SR.4.3.5, P. 4-2
WATER RESOURCES				
6. GROUND WATER	 S.3.4.1, P. 3-4 & SC.4.4.1, P. 4-3			SR.4.4.1, P. 4-2
7. SURFACE WATER	 S.3.4.2, P. 3-5 & SC.4.4.2, P. 4-4			SR.4.4.2, P. 4-2
8. FLOOD PLAINS AND WETLANDS	 S.3.4.3, P. 3-7 & SC.4.4.3, P. 4-4			SR.4.4.3, P. 4-2
LEGEND:				
Beneficial Impact (May Be Significant) Beneficial Impact (Not Significant) Beneficial Impact (Not Significant)				

SHERIDAN		FORT SHERIDAN REUTILIZATION			FT. BENJAMIN
r	Reserve Center (S. Areas A , B, C & G)	Resort Conference/ Residential Use	Mixed Use Development	Residential Use Development	HARRISON REALIGNMENT
	C	D	E	F	G

SHERIDAN REUTILIZATION		FT. BENJAMIN HARRISON REALIGNMENT	FORT McCOY REALIGNMENT
Mixed Use Development	Residential Use Development		
E	F	G	H
		H.3.3.1, P. 3-45 & H.4.3.1, P. 4-29	M.3.3.1, P. 3-82 & M.4.3.1, P. 4-42
		H.3.3.2, P. 3-45 & H.4.3.2, P. 4-29	M.3.3.2, P. 3-82 & M.4.3.2, P. 4-42
		H.3.3.3, P. 3-45 & H.4.3.3, P. 4-29	M.3.3.2, P. 3-82 & M.4.3.3, P. 4-42
		H.3.3.4, P. 3-46 & H.4.3.4, P. 4-29	M.3.3.2, P. 3-82 & M.4.3.4, P. 4-43
		H.3.3.5, P. 3-46 & H.4.3.5, P. 4-30	M.3.3.3, P. 3-82 & M.4.3.5, P. 4-43
		H.3.4.1, P. 3-47 & H.4.4.1, P. 4-30	M.3.4.1, P. 3-82 & M.4.4.1, P. 4-43
		H.3.4.2, P. 3-49 & H.4.4.2, P. 4-30	M.3.4.2, P. 3-83 & M.4.4.2, P. 4-43
		H.3.4.3, P. 3-51 & H.4.4.3, P. 4-31	M.3.4.2, P. 3-83 & M.4.4.2, P. 4-43
Minor Adverse Impact (Not Significant) Adverse Impact (May Be Significant)			

H.3.5.2, P. 3-54 Refers to text sections (and page no.)
that discuss related topic.

FIGURE SU-1 (Page 2 of 3)

**SUMMARY OF ENVIRONMENTAL CONSEQUENCES
FORT SHERIDAN - BASE CLOSURE AND REALIGNMENT**

Implementation Action Environmental Factor	CLOSURE OF FORT SHERIDAN			Res R
	Deactivation, Re- alignment, & Storage	Reserve Center (N. Area D)	Reserve Center (S. Areas A, B, C & G)	
	A	B	C	
SEE LEGEND				
BIOLOGICAL RESOURCES				
9. WILDLIFE RESOURCES	 S.3.5.1, P. 3-7 & SC.4.5.1, P. 4-5			SR.4.5.1
10. PLANT RESOURCES	 S.3.5.2, P. 3-9 & SC.4.5.2 P. 4-5			SR.4.5.2
11. THREATENED & ENDANGERED SPECIES	 S.3.5.3, P. 3-10 & SC.4.5.3, P. 4-6			SR.4.5.3
CULTURAL RESOURCES				
12. NATIVE AMERICAN VALUES	 S.3.6.1, P. 3-14 & SC.4.6.1, P. 4-6			SR.4.6.1
13. ARCHEOLOGICAL RESOURCES	 S.3.6.2, P. 3-14 & SC.4.6.2, P. 4-6			SR.4.6.2
14. ARCHITECTURAL RESOURCES	 S.3.6.3, P. 3-16 & SC.4.6.3, P. 4-7			SR.4.6.3
HUMAN ENVIRONMENT				
15. VISUAL & AESTHETIC VALUES	 S.3.7.1, P. 3-16 & SC.4.7.1, P. 4-7			SR.4.7.1
16. NOISE & ODOR	 S.3.7.2, P. 3-19 & SC.4.7.2, P. 4-8			SR.4.7.2
LEGEND: Beneficial Impact (May Be Significant) Beneficial Impact (Not Significant)				

FORT SHERIDAN		FORT SHERIDAN REUTILIZATION			FT. BENJAMIN
Center	Reserve Center	Resort Conference/	Mixed	Residential	HARRISBURG
(a D)	(S. Areas A , B, C & G)	Residential Use	Use Development	Use Development	REALIGNMENT
	C	D	E	F	G
		SR.4.5.1, P. 4-21			H.3.5.1, P. 3-51 & H.4.5.1, P. 4-31
		SR.4.5.2, P. 4-22			H.3.5.2, P. 3-54 & H.4.5.2, P. 4-32
		SR.4.5.3, P. 4-22			H.3.5.3, P. 3-54 & H.4.5.3, P. 4-32
		SR.4.6.1, P. 4-22			H.3.6.1, P. 3-56 & H.4.6.1, P. 4-32
		SR.4.6.2, P. 4-22			H.3.6.2, P. 3-56 & H.4.6.2, P. 4-32
		SR.4.6.3, P. 4-23			H.3.6.3, P. 3-56 & H.4.6.3, P. 4-33
		SR.4.7.1, P. 4-23			H.3.7.1, P. 3-61 & H.4.7.1, P. 4-33
		SR.4.7.2, P. 4-24			H.3.7.2, P. 3-61 & H.4.7.2, P. 4-33

Beneficial Impact
(Not Significant)





































No Adverse
Impact

Minor Adverse Impact
(Not Significant)

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H.3.5.2, P. 3-54 Refers to t

PORT SHERIDAN REUTILIZATION			FT. BENJAMIN HARRISON REALIGNMENT	FORT McCOY REALIGNMENT
ce/	Mixed	Residential		
e	Use Development	Use Development		
	E	F	G	H
				
				
			H.3.5.1, P. 3-51 & H.4.5.1, P. 4-31	M.3.5.1, P. 3-83 & M.4.5.1, P. 4-43
				
			H.3.5.2, P. 3-54 & H.4.5.2, P. 4-32	M.3.5.1, P. 3-83 & M.4.5.2, P. 4-44
				
			H.3.5.3, P. 3-54 & H.4.5.3, P. 4-32	M.3.5.2, P. 3-84 & M.4.5.3, P. 4-44
				
			H.3.6.1, P. 3-56 & H.4.6.1, P. 4-32	M.3.6, P. 3-84 & M.4.6.1, P. 4-44
				
			H.3.6.2, P. 3-56 & H.4.6.2, P. 4-32	M.3.6, P. 3-84 & M.4.6.2, P. 4-44
				
			H.3.6.3, P. 3-56 & H.4.6.3, P. 4-33	M.3.6, P. 3-84 & M.4.6.3, P. 4-44
				
			H.3.7.1, P. 3-61 & H.4.7.1, P. 4-33	M.3.7.1, P. 3-85 & M.4.7.1, P. 4-45
				
			H.3.7.2, P. 3-61 & H.4.7.2, P. 4-33	M.3.7.2, P. 3-85 & M.4.7.2, P. 4-45

Adverse Impact



Minor Adverse Impact
(Not Significant)



Adverse Impact
(May Be Significant)

H.3.5.2, P. 3-54 Refers to text sections (and page no.) that discuss related topic.

FIGURE SU-1 (Page 3 of 3)

SUMMARY OF ENVIRONMENTAL CONSEQUENCES FORT SHERIDAN - BASE CLOSURE AND REALIGNMENT

Implementation Action Environmental Factor	CLOSURE OF FORT SHERIDAN			Reso Res
	Deactivation, Re- alignment, & Storage	Reserve Center (N. Area D)	Reserve Center (S. Areas A, B, C & G)	
	A	B	C	
SEE LEGEND				
17. HAZARDOUS MATERIAL SITES	 S.3.7.3, P. 3-19 & SC.4.7.3, P. 4-8			SR.4.7.3.
18. TRAFFIC & TRANSPORTATION	 S.3.7.4, P. 3-24 & SC.4.7.4, P. 4-10			SR.4.7.4.
19. UTILITY SYSTEMS	 S.3.7.5, P. 3-25 & SC.4.7.5, P. 4-10			SR.4.7.5.
20. SOLID WASTE DISPOSAL	 S.3.7.6, P. 3-26 & SC.4.7.6, P. 4-13			SR.4.7.6.
21. LAND USE & ZONING	 S.3.8.3, P. 3-32 & SC.4.8.2, P. 4-13			SR.4.8.2.
22. COMMUNITY FACILITIES	 S.3.8.4, P. 3-41 & SC.4.8.3, P. 4-14			SR.4.8.3.
23. POPULATION	 S.3.8.2, P. 3-32 & SC.4.8.4, P. 4-15			SR.4.8.4.
24. ECONOMIC CONDITIONS	 S.3.8.4 and 5, P. 3-41 & SC.4.8.5, P. 4-16			SR.4.8.5.
25. HOUSING STOCK	 S.3.8.7, P. 3-43 & SC.4.8.6, P. 4-18			SR.4.8.6.
LEGEND: Beneficial Impact (May Be Significant) Beneficial Impact (Not Significant)				













































FORT SHERIDAN		FORT SHERIDAN REUTILIZATION			FT. BENJAMIN HARRIS REALIGNMENT
Center (S. Areas A, B, C & G)	Reserve Center (S. Areas A, B, C & G)	Resort Conference/Residential Use	Mixed Use Development	Residential Use Development	
D	C	D	E	F	G
		SR.4.7.3, P. 4-24			H.3.7.3, P. 3-63 & H.4.7.3, P. 4-35
		SR.4.7.4, P. 4-24			H.3.7.4, P. 3-64 & H.4.7.4, P. 4-35
		SR.4.7.5, P. 4-25			H.3.7.5, P. 3-65 & H.4.7.5, P. 4-36
		SR.4.7.6, P. 4-26			H.3.7.6, P. 3-68 & H.4.7.6, P. 4-38
		SR.4.8.2, P. 4-27			H.3.8.3, P. 3-76 & H.4.8.2, P. 4-38
		SR.4.8.3, P. 4-27			H.3.8.4, P. 3-76 & H.4.8.3, P. 4-38
		SR.4.8.4, P. 4-27			H.3.8.2, P. 3-71 & H.4.8.4, P. 4-39
		SR.4.8.5, P. 4-28			H.3.8.6, P. 3-79 & H.4.8.5, P. 4-39
		SR.4.8.6, P. 4-28			H.3.8.5, P. 3-79 & H.4.8.6, P. 4-41

Beneficial Impact (Not Significant)

No Adverse Impact

Minor Adverse Impact (Not Significant)

Adverse Impact

FORT SHERIDAN REUTILIZATION			FT. BENJAMIN HARRISON REALIGNMENT	FORT McCOY REALIGNMENT
ence/ Jse	Mixed Use Development	Residential Use Development		
	E	F	G	H
				
				
			H.3.7.3, P. 3-63 & H.4.7.3, P. 4-33	M.3.7.3, P. 3-85 & M.4.7.3, P. 4-45
				
			H.3.7.4, P. 3-64 & H.4.7.4, P. 4-35	M.3.7.4, P. 3-86 & M.4.7.4, P. 4-45
				
			H.3.7.5, P. 3-65 & H.4.7.5, P. 4-36	M.3.7.5, P. 3-88 & M.4.7.5, P. 4-45
				
			H.3.7.6, P. 3-68 & H.4.7.6, P. 4-38	M.3.7.6, P. 3-88 & M.4.7.6, P. 4-46
				
			H.3.8.3, P. 3-76 & H.4.8.2, P. 4-38	M.3.8.2, P. 3-88 & M.4.8.2, P. 4-46
				
			H.3.8.4, P. 3-76 & H.4.8.3, P. 4-38	M.3.8.3, P. 3-91 & M.4.8.3, P. 4-46
				
			H.3.8.2, P. 3-71 & H.4.8.4, P. 4-39	M.3.8.4, P. 3-91 & M.4.8.4, P. 4-46
				
			H.3.8.6, P. 3-79 & H.4.8.5, P. 4-39	M.3.8.5, P. 3-93 & M.4.8.5, P. 4-47
				
			H.3.8.5, P. 3-79 & H.4.8.6, P. 4-41	M.3.8.6, P. 3-93 & M.4.8.6, P. 4-48

o Adverse
Impact



Minor Adverse Impact
(Not Significant)



Adverse Impact
(May Be Significant)

H..3.5.2, P. 3-54 Refers to text sections (and page no.)
that discuss related topic.

CHAPTER 1
Proposed Action Description,
Purpose and Need

CHAPTER 1

PLANNED ACTION DESCRIPTION, PURPOSE AND NEED

1.1 Background and Regulatory Authority

The Defense Secretary's Commission on Base Realignment and Closure ("Commission") was chartered on May 3, 1988, by the Secretary of Defense to recommend military installations within the United States, its commonwealths, territories, and possessions for realignment and closure. Subsequently, the Defense Authorization Amendments and Base Closure and Realignment Act (Public Law 100-526, October 24, 1988) endorsed the Secretary's Commission and required the Secretary of Defense to implement its recommendations unless he rejected them in their entirety or the Congress passed (and the President signed) a Joint Resolution disapproving the Commission's recommendations. A copy of the Base Closure and Realignment Act has been included as Appendix A to this document.

The primary criterion used by the Commission for identifying candidate bases was the military value of the installation. However, cost savings were also considered, as were the current and projected plans and requirements for each military service. Lastly, the Commission focused its review on military properties and their uses, not military units or organizational/administrative issues.

On December 29, 1988, the Commission recommended the realignment and closure of 145 military installations. Of this number, 86 are to be closed fully, five are to be closed in part, and 54 will experience a change (either an increase or decrease) as units and activities are relocated. On January 8, 1989, the Secretary of Defense approved these recommendations and announced that the Department of Defense would implement them. The Congress did not pass a Joint Resolution disapproving the recommendations within the time allotted by the Act.

Therefore, the Act now requires the Secretary of Defense, as a matter of law, to implement these closures and realignments. Implementation must be initiated by September 30, 1991, and must be completed no later than September 30, 1995. Thus, the decision has been made to close Fort Sheridan, and to realign units to other installations.

The Base Closure and Realignment Act requires the implementing actions to conform to the provisions of the National Environmental Policy Act of 1969 (NEPA), as implemented by the President's Council on Environmental Quality (CEQ) regulations. In addition, this Environmental Impact Statement (EIS) also follows Department of the Army Regulation (AR 200-2) which provides policy and procedures for implementing both NEPA and CEQ regulations within the Army system. However, the Act also modified NEPA to the extent that the environmental analysis need not consider:

1. the need for closing or realigning a military installation selected for closure or realignment by the Commission;
2. the need for transferring functions to locations other than those selected by the Commission; or
3. alternative military installations to those selected.

1.2 Description of Planned Action and Scope of the EIS

1.2.1 The Planned Action

The implementing actions to be considered in this EIS include the following components:

1. The closure of Fort Sheridan, Illinois.
2. The retention of approximately 100 acres of installation property by the Department of Defense (DOD) to be used for Reserve Component activities.
3. The disposal and potential reuse of remaining sections of Fort Sheridan to be identified for disposal.
4. The relocation of Headquarters 4th U.S. Army, and Headquarters U.S. Army Recruiting Command (USAREC) from Fort Sheridan to Fort Benjamin Harrison, Indiana.
5. The relocation of the Personnel Specialist (75D/E) Combat Service Support Advance Individual Training (AIT) function from Fort Jackson, South Carolina, to Fort Benjamin Harrison, Indiana.
6. The relocation of Administrative Assistant and Legal Specialist (71C/D) Combat Service Support Advance Individual Training (AIT) function from Fort Benjamin Harrison, Indiana, to Fort Jackson, South Carolina.
7. The relocation of Fort Sheridan DOD Area Support, Army Continuing Education Support, Airfield Departure Control Group (ADCG), Public Affairs Activities and Physical Security and AWOL Apprehension personnel to Fort McCoy, Wisconsin.
8. The relocation of the United States Army Recruiting Battalion Chicago, Illinois, and the United States Army Recruiting Brigade Midwest from Fort Sheridan to leased space in the Chicago area.
9. Other minor reassignments from Fort Sheridan to various locations as shown in Table 1-1.

Table 1-1 has been included to summarize the migration of jobs associated with the closure and realignment actions listed above. A more detailed description of the realignment of missions and functions is contained in the Base Realignment and Closure Implementation Plan, Fort Sheridan, dated September 1989, which is on file at the U.S. Army Engineer District, Louisville.

The closure of Fort Sheridan will also impact approximately 7,000 dependents associated with military and civilian personnel authorizations shown on Table 1-1. Current military to dependent and civilian to dependent ratios were provided by the Fort Sheridan Directorate of Engineering

and Housing. These ratios were then applied to the authorizations shown in Table 1-1 to estimate the number of dependents.

General schedules have been established for certain elements of the planned action. Headquarters 4th U.S. Army at Fort Sheridan is scheduled to relocate during Fiscal Year (FY) 1993. The completion date for the relocation of USAREC is scheduled for summer of 1993. Completion dates for the AIT 71C/D to go to Fort Jackson is fall of 1991; and the AIT 75D/E will move from Fort Jackson to Fort Benjamin Harrison during the winter of 1992. No definite schedules have been established for the other realignment actions described above.

1.2.2 Scope of the EIS

The EIS includes the following elements:

1. A description of the planned action and a discussion of implementation alternatives.
2. A discussion of the affected environment and environmental consequences of the planned closure and realignment actions at Fort Sheridan, Fort Benjamin Harrison and Fort M^cCoy. (The evaluation of impacts anticipated at Fort Benjamin Harrison includes the cumulative impacts of planned realignment actions from Fort Sheridan and Fort Jackson.)
3. Methods for minimizing and mitigating those adverse impacts that are found to be unavoidable.
4. A discussion of future use alternatives for surplus property at Fort Sheridan and general related impacts.

1.3 Purpose and Need for the Planned Action

The base closure program is founded on the principle that the national defense can be improved, and its costs reduced through a more efficient base structure. Based on this principle, the Commission recommended the closure of Fort Sheridan primarily because it is located in a heavily urbanized, high-cost area with minimal potential for future growth. Other factors influencing the Commission's recommendation included their findings that:

- Fort Sheridan is located on high-value property.
- The missions and tenants can be easily relocated.
- The net closure and relocation costs will be recovered due to an expected annual savings of 40.8 million dollars.
- The closure is expected to have minimal impact on the environment and on local employment.

TABLE 1-1

FORT SHERIDAN
MIGRATION OF PERSONNEL AUTHORIZATIONS
(As of March 22, 1990)

	MILITARY	CIVILIAN	TOTAL
1. Transferred Out Of The Region:			
• Fort Benjamin Harrison	653*	712*	1365*
• Fort M ^c Coy	18	152	170
• Savanna Army Depot	12	0	12
• Great Lakes Naval Station	12	2	14
• Fort Leavenworth	0	5	5
• Fort Leonard Wood	9	2	11
• Fort Belvoir	4	0	4
• Fort Lee	1	0	1
• Fitzsimons Army Medical Center	7	3	10
• Fort Shafter	4	0	4
Sub-Total	720	876	1596
2. Eliminated:			
• Fort Sheridan (Includes 207 NAF Spaces)	305	824	1129
Sub-Total	305	824	1129
3. To Remain In The Region:			
• Leased Space	78	58	136
• Corps of Engineers	1	5	6
Sub-Total	79	63	142
4. To Remain At Current Location:			
• Fort Sheridan Reserve Center	178	162	340
• Fort M ^c Coy TDA (Various Locations)	5	40	45
Sub-Total	183	202	385
FORT SHERIDAN BASELINE TOTAL CURRENT PERSONNEL AUTHORIZATIONS (Equals Total of Items 1-4)	<u>1287</u>	<u>1965</u>	<u>3252</u>

* In addition to transfers from Fort Sheridan, Fort Benjamin Harrison will receive a net increase in average daily student load of 109; and a related net increase of 11 military and 3 civilian personnel from Fort Jackson to support this increased student training load; and 4 military and 5 civilian HSC personnel from Fort Jackson. These actions result in total transfers to Fort Benjamin Harrison of 668 military and 720 civilian personnel, and a net increase in average daily student load of 109.

NOTE: This chart identifies personnel authorizations as of March 22, 1990. Since personnel numbers are in a continuous state of change, the personnel numbers are rounded in other parts of the document to reflect the order of magnitude of personnel affected.

In addition to the closure of Fort Sheridan, the Commission recommended that most missions and tenant organizations at Fort Sheridan be relocated to Fort Benjamin Harrison, Indiana. This recommendation was based on the following factors:

- Relocation of the Headquarters 4th U.S. Army must be within its seven-state area.
- The U.S. Army Recruiting Command needs to be centrally located due to its nationwide mission.
- Both of the above activities require adequate transportation network facilities.

1.4 Location of Planned Action

The closing installation (Fort Sheridan) is located on the west shore of Lake Michigan in Lake County, Illinois, approximately 25 miles north of the Chicago Business District and 20 miles south of the Wisconsin border (See Figure 1-1). The installation is bounded on the north, west, and south sides by the respective communities of Lake Forest, Highwood, and Highland Park (See Figure 1-2). Fort Sheridan's mission is primarily related to administrative and reserve support. The installation is approximately 1.5 miles long by 0.75 miles wide and contains approximately 700 acres of relatively flat land traversed by several deep, steep-sided ravines. Figure 1-3 provides a general installation map of Fort Sheridan.

The primary receiving installation (Fort Benjamin Harrison) is located in the northeast sector of Marion County, Indiana, approximately 12 miles northeast of downtown Indianapolis as shown in Figure 1-4. This installation contains approximately 2,500 acres, and lies within the boundaries of the City of Lawrence and Lawrence Township, and is generally bordered on the north by Fall Creek and on the south by Penn Central Railroad (See Figure 1-5). A generalized installation map depicting the boundaries and major features is presented as Figure 1-6.

Fort M^cCoy is located in the northern portion of Monroe County in west central Wisconsin, approximately 35 miles northeast of LaCrosse, Wisconsin (See Figure 1-7). Installation boundaries and other general features are shown on Figure 1-8.

Primary access between Fort Sheridan and Fort Benjamin Harrison is provided by Interstate 65, with an approximate total driving distance of 200 miles. Interstate 90/84 provides primary access from Fort Sheridan to Fort M^cCoy, a driving distance of approximately 250 miles (See Figure 1-9).

1.5 Scoping Process

Public scoping meetings were held at Fort Sheridan and Fort Benjamin Harrison. These scoping meetings were conducted to provide an opportunity for interested parties (including public agencies, organized groups and individuals) to assist the U.S. Army in determining the significant issues which need to be addressed in the EIS for the closure and realignment of Fort Sheridan. A complete transcript of each public hearing, and copies of all related letters and memoranda received in association with the scoping meetings are on file in the Office of the District Engineer, Corps of Engineers, Louisville, Kentucky.

1.5.1 Fort Sheridan Public Scoping Meeting

On May 8, 1989, the Department of the Army published a Notice of Intent in the Federal Register to prepare the Environmental Impact Statement for the closure of Fort Sheridan, and the realignment of activities to Fort Benjamin Harrison and other locations. Local notification of the scoping meetings was achieved through television, radio, and newspapers.

The Fort Sheridan public scoping meeting was held on May 30, 1989, at Highland Park High School. In addition to individuals, a number of organizations or agencies were represented including the Highland Park Historical Society, Landmark Preservation Council of Illinois, University of Illinois, Advocates for the Public Interest in Fort Sheridan, Illinois Audubon Society, the Broadlands, Northeastern Illinois Planning Commission, Lake Michigan Federation, Highwood-Highland Park Education Association (District 111), Illinois Association of Park Districts, the City of Highland Park Environmental Control Commission and Park District and the Open Land Project. In addition to the public meeting participants, a number of groups provided initial written comments including the Illinois Historic Preservation Agency, the National Trust for Historic Preservation, the Lake County Forest Preserve District and the Highwood Chamber of Commerce.

A summary of issues raised at the initial scoping meeting (and in correspondence submitted during the post-meeting comment period) is provided below.

Shoreline Erosion Hazard

- Existing problems associated with shoreline erosion damage and restoration needs, including restoration of beach areas.
- Potential for increased shoreline erosion and/or greater impacts on down shore areas resulting from various reuse alternatives; and related erosion control management strategies and costs.

Air Quality

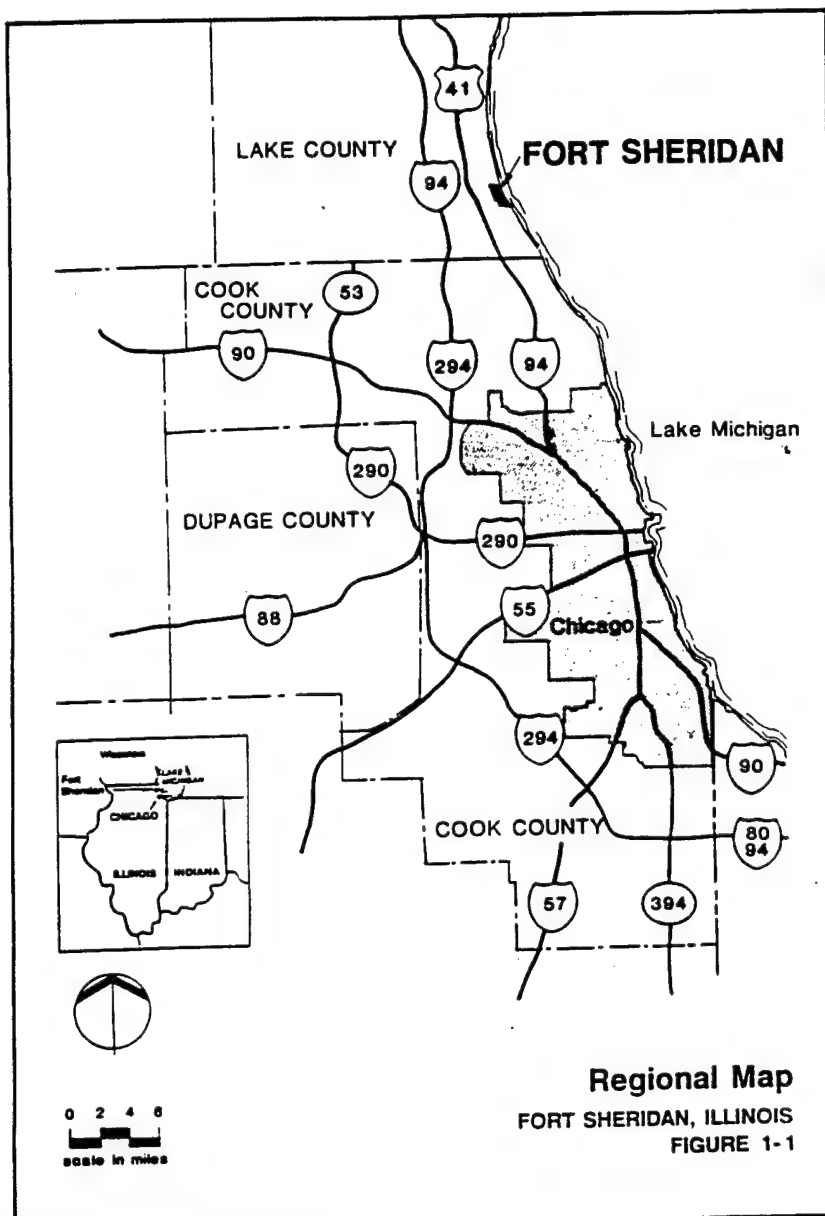
- Evaluation of indoor air quality within existing buildings including verification of adequate ventilation, radon gas levels, asbestos fibers, etc.

Water Resources

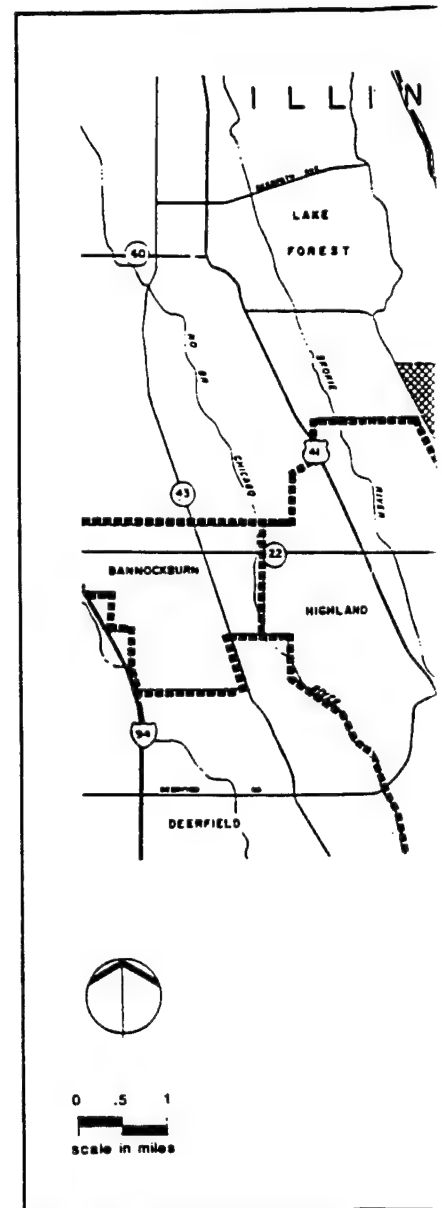
- Potential stormwater impacts on Lake Michigan water quality.

Biological Resources

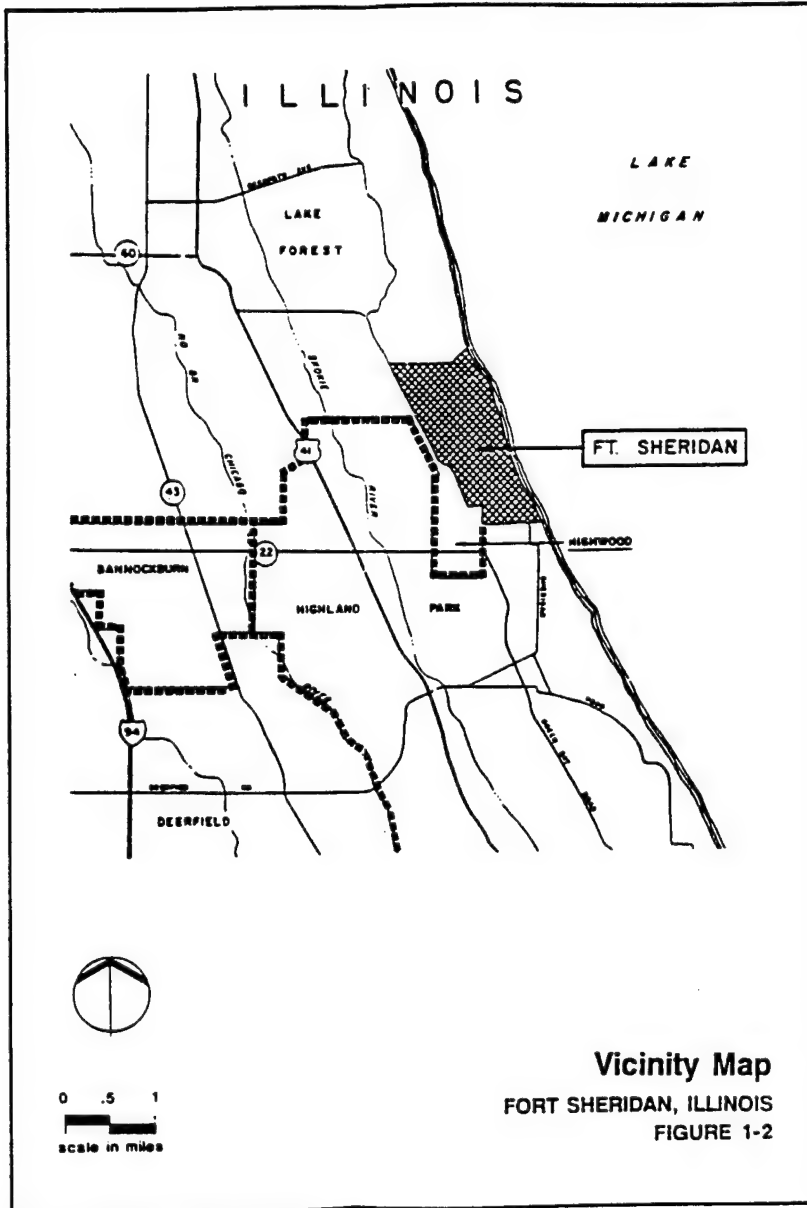
- Potential impacts to existing trees (natural and landscaped) and remnants of significant natural vegetation areas.
- Potential impacts (short- and long-term) to unique shoreline bluff and ravine environments, and the need for restrictions on future development. (Possible protection through inclusion in Illinois Nature Preserve System.)



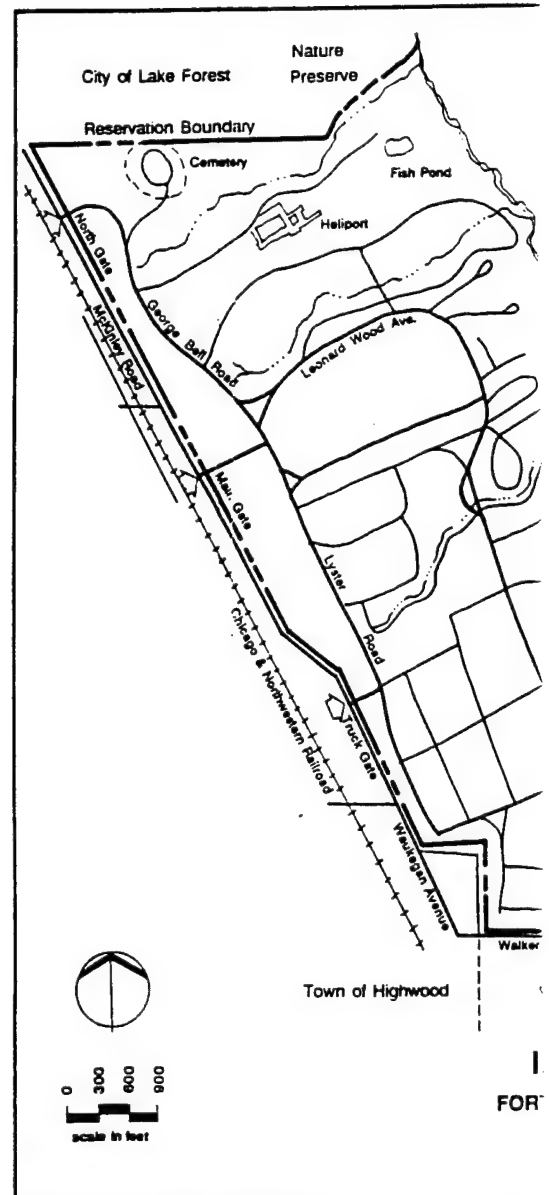
Source: Harland Bartholomew & Associates, Inc.



Source: U.S. Army Corps of Engineers, 1965a.



Source: U.S. Army Corps of Engineers, 1985a.



FIGURES 1-1 THROUGH 1-3

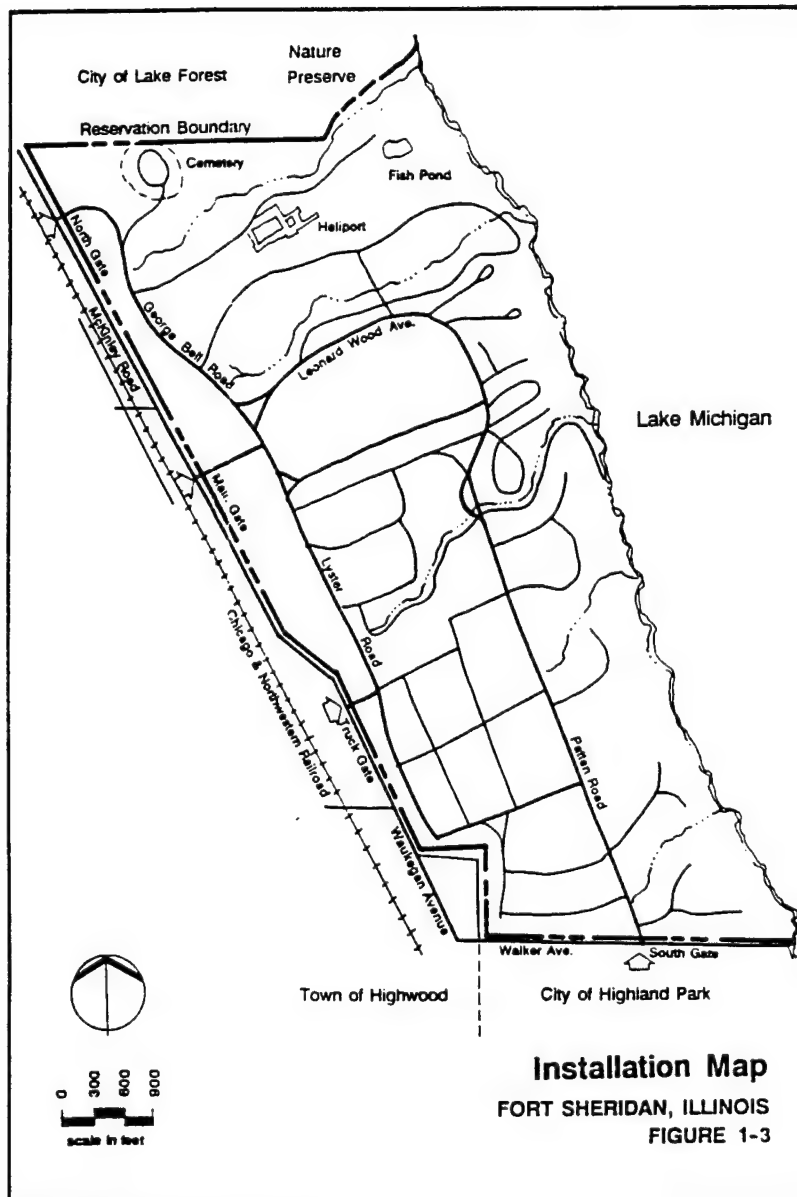
LAKE
MICHIGAN

FORT SHERIDAN

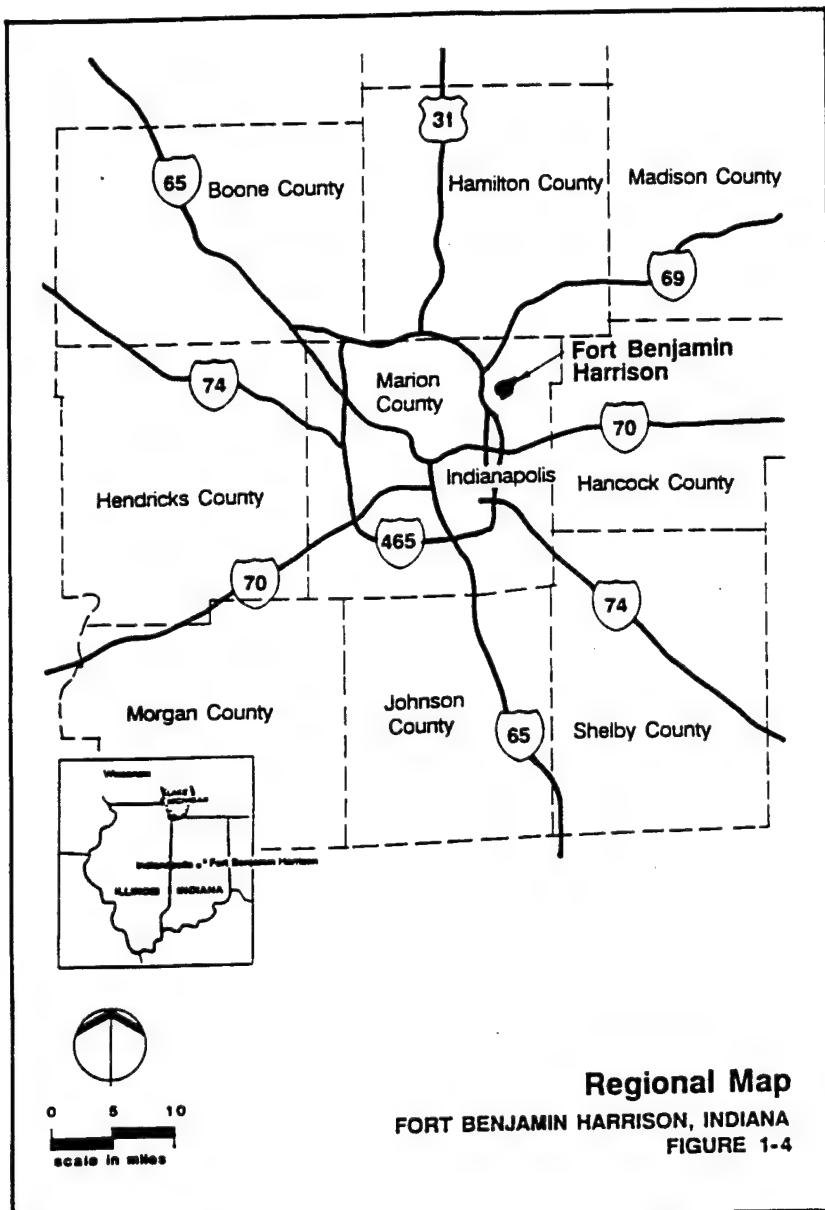
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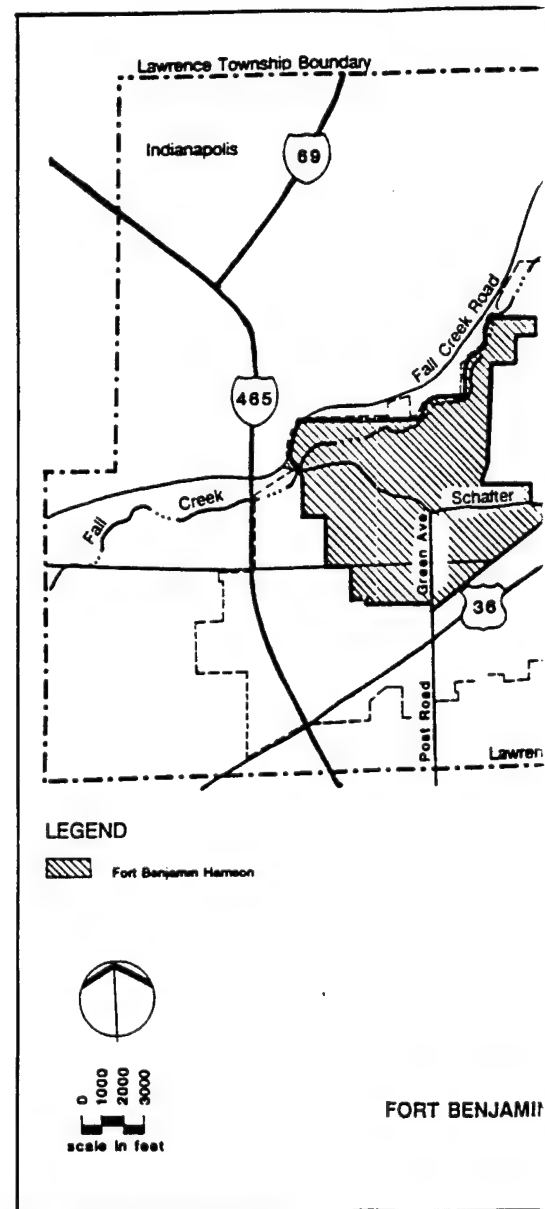
Locality Map
FORT SHERIDAN, ILLINOIS
FIGURE 1-2



Source: Harland Bartholomew & Associates, Inc.



Source: Harland Bartholomew & Associates, Inc.



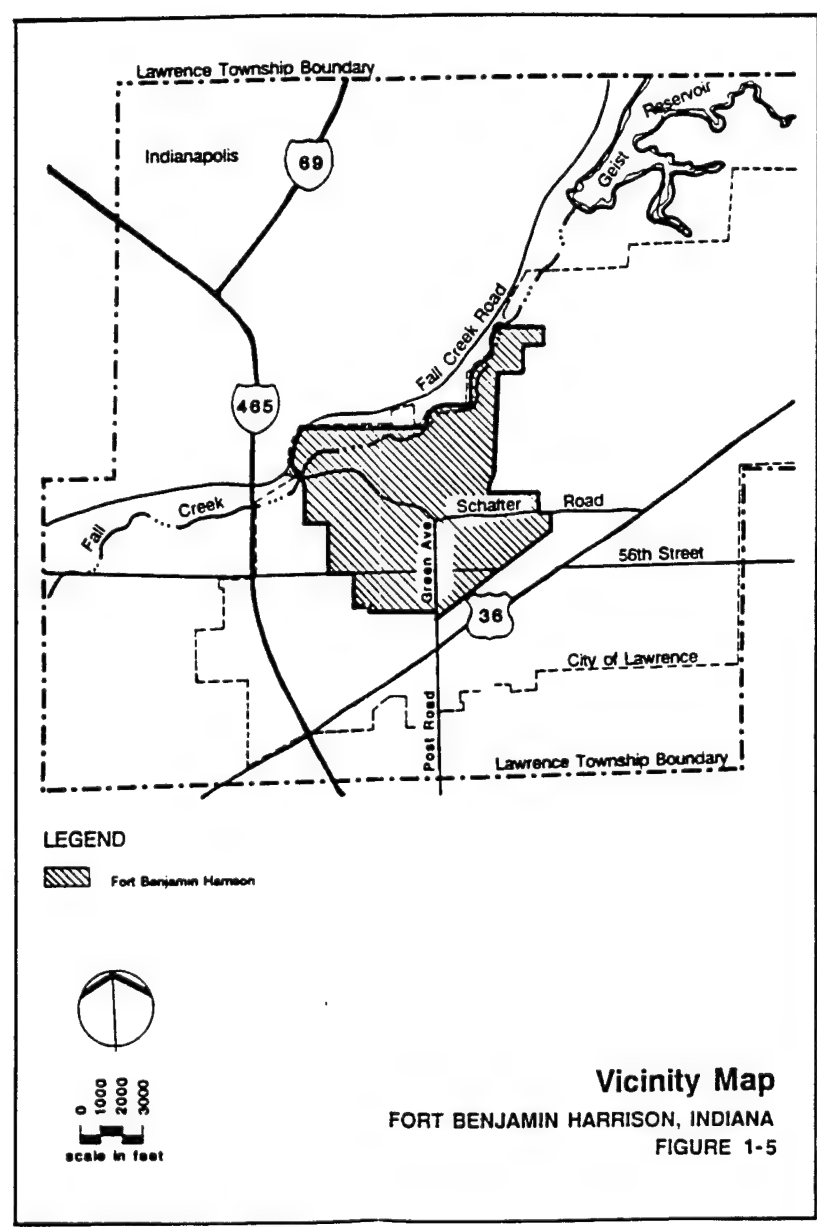
Source: Harland Bartholomew & Associates, Inc.

County

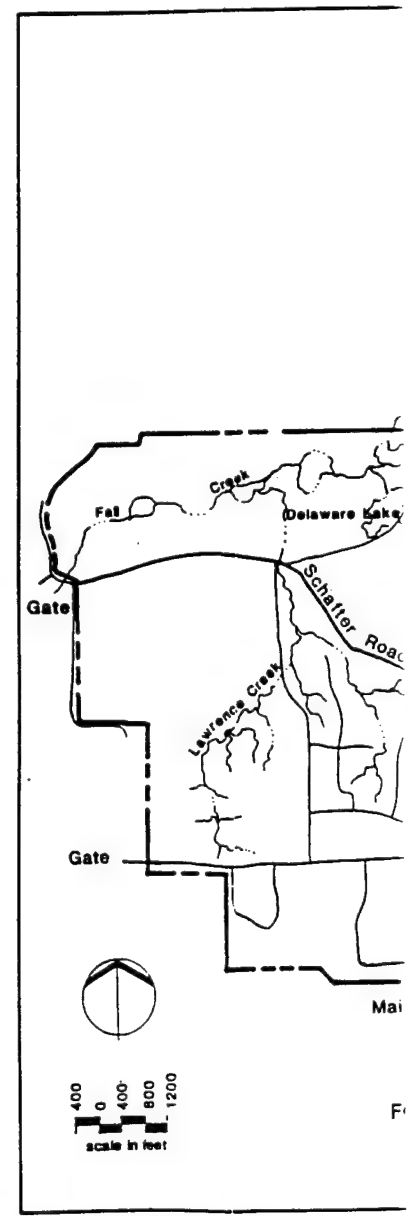
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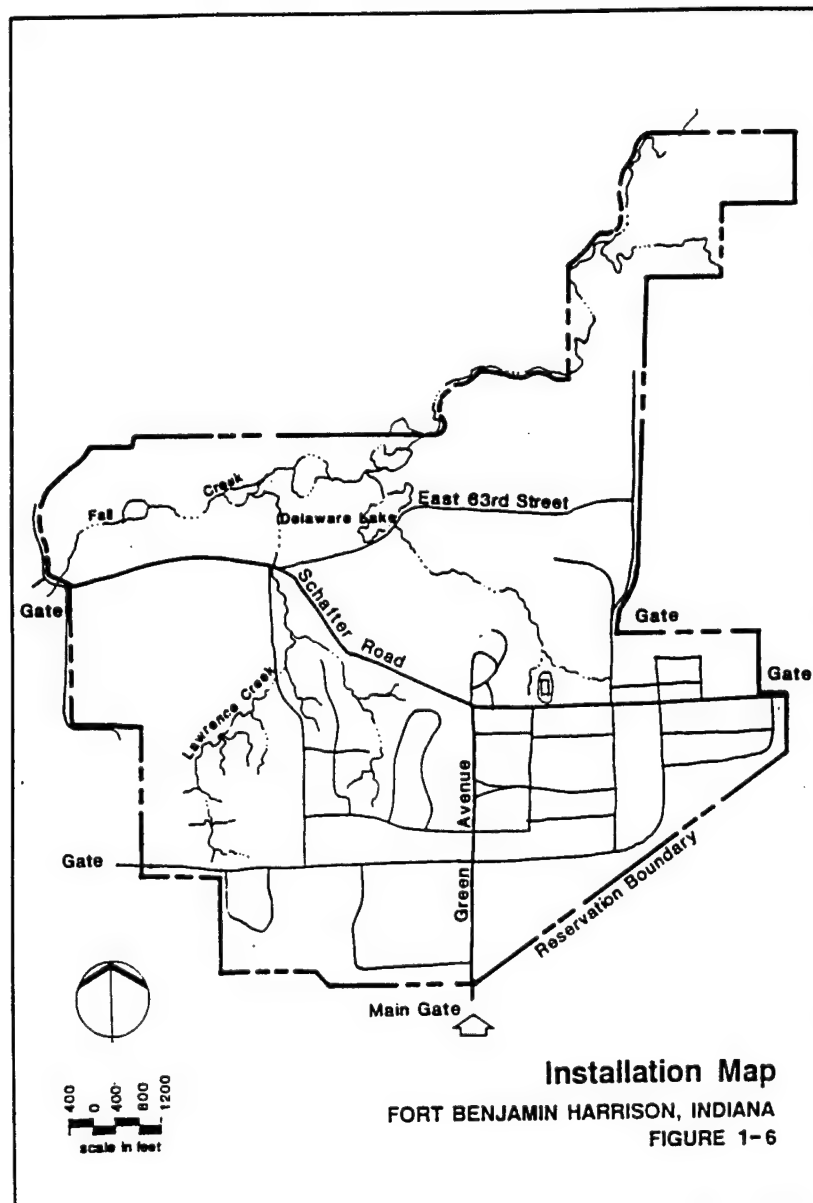
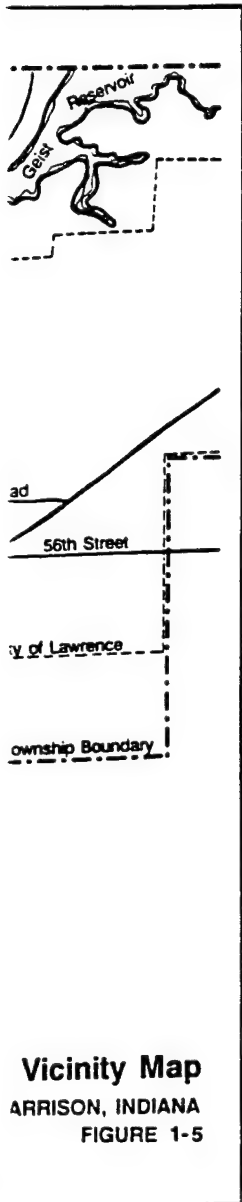
Map
INDIANA
IRE 1-4



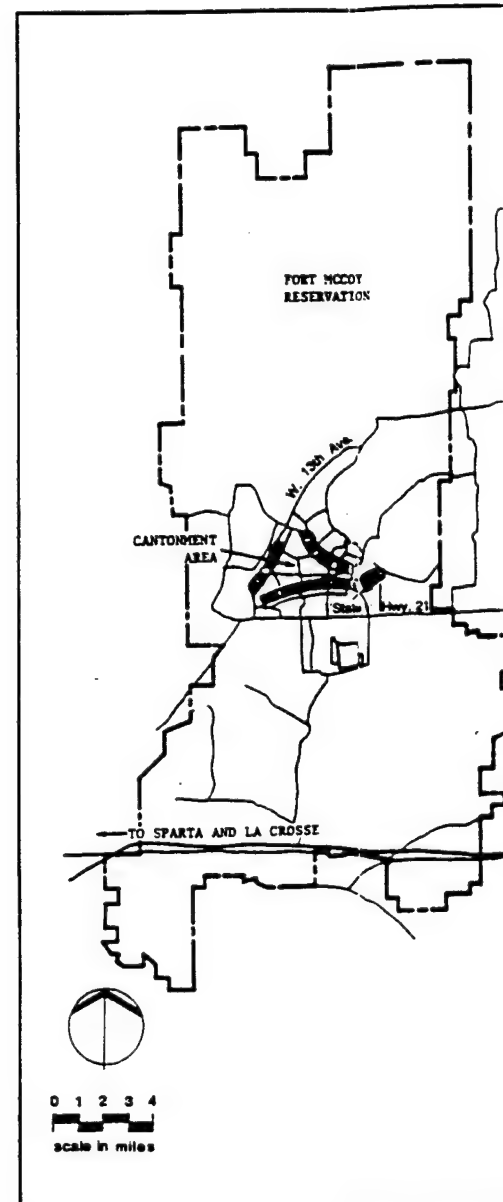
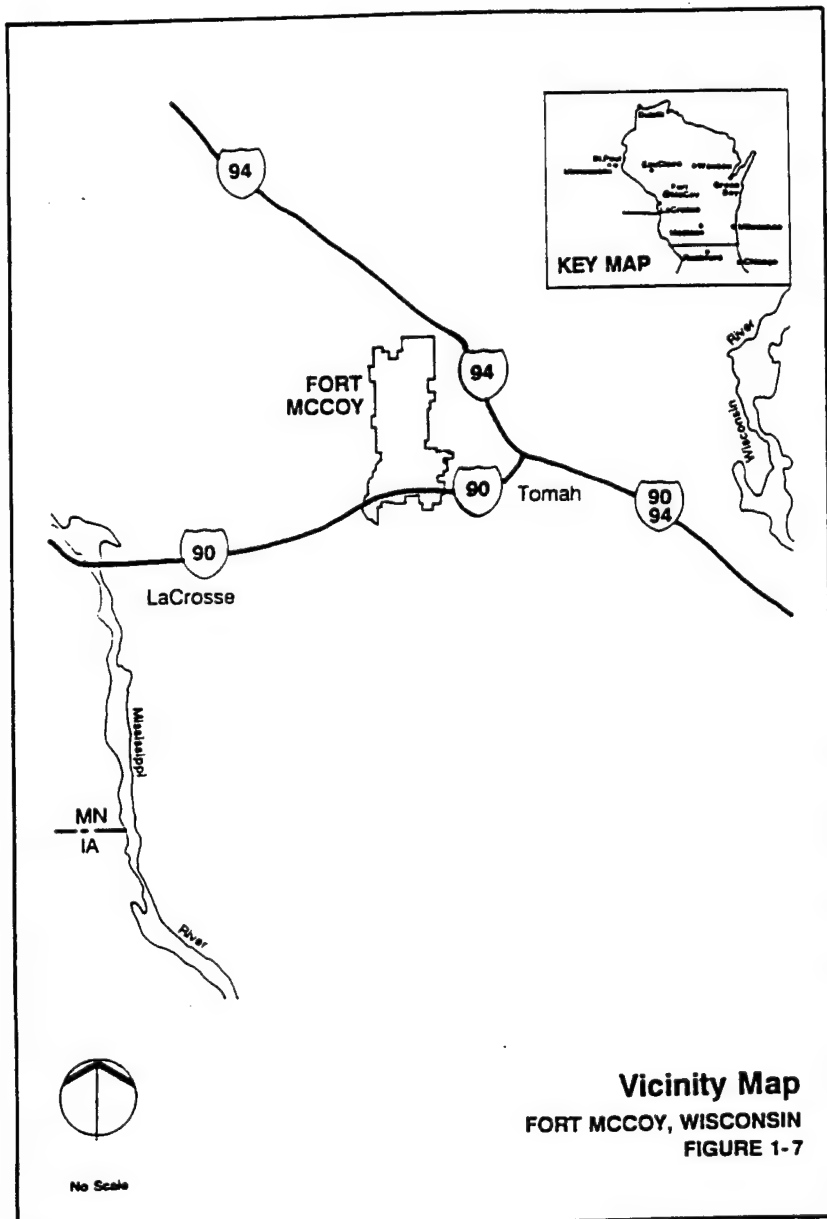
Source: Harland Bartholomew & Associates, Inc.

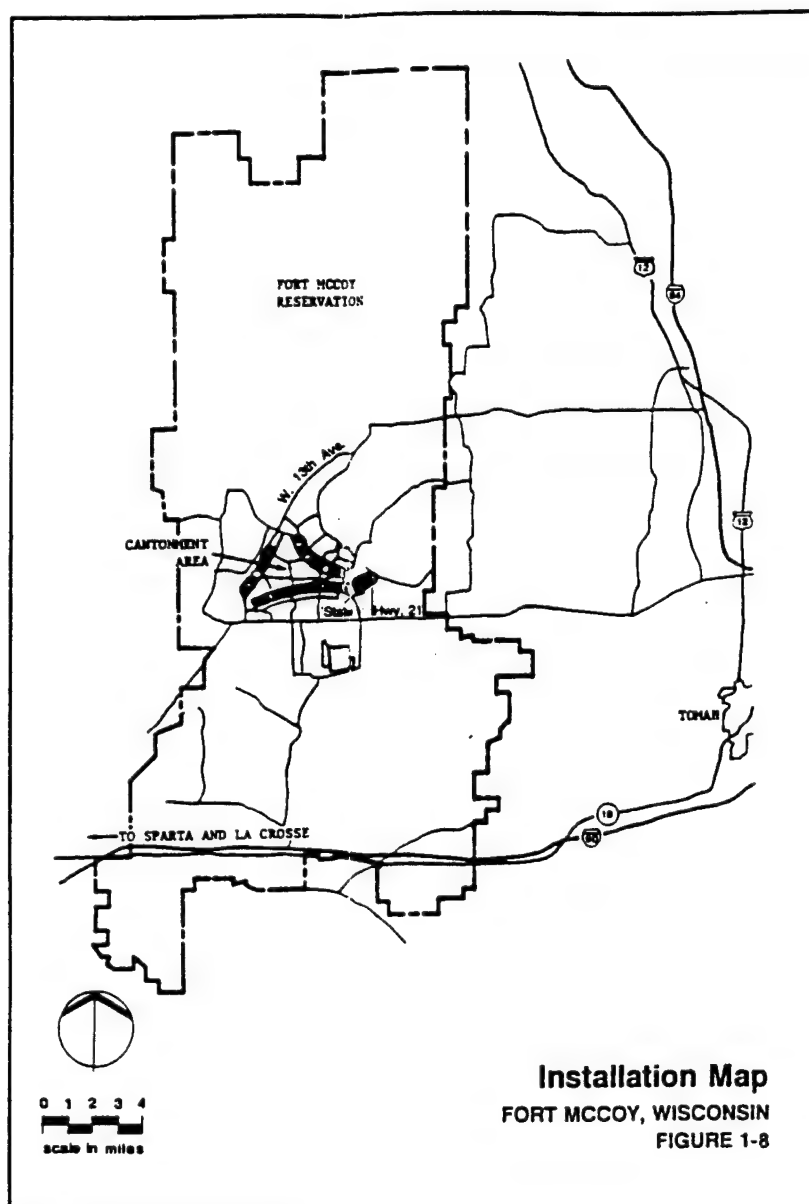


FIGURES 1-4 THROUGH 1-6

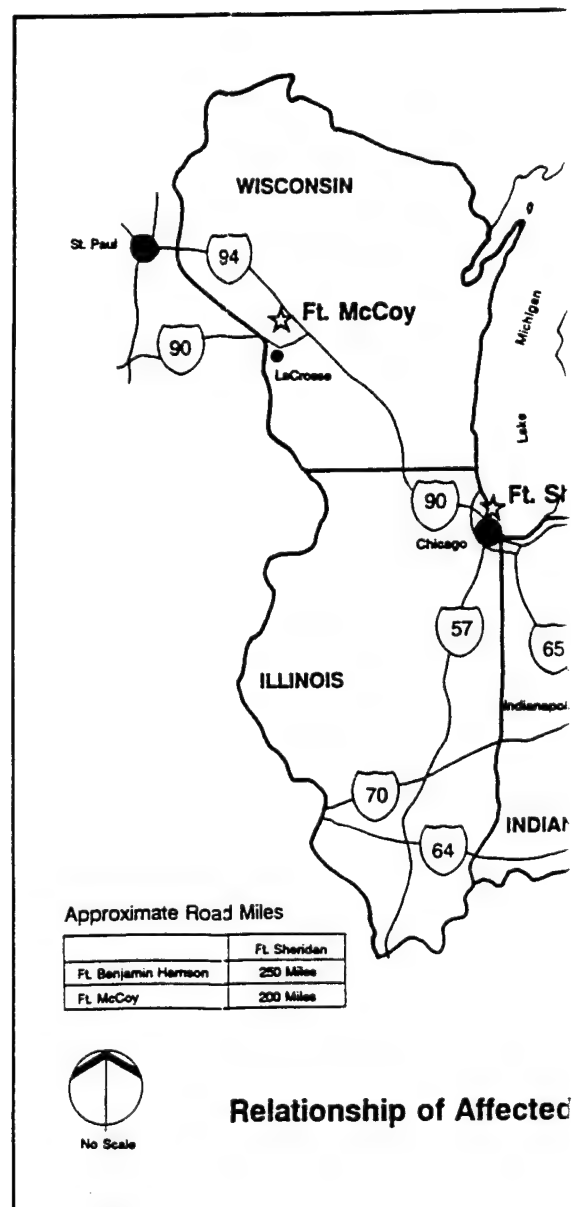


Source: Harland Bartholomew & Associates, Inc.

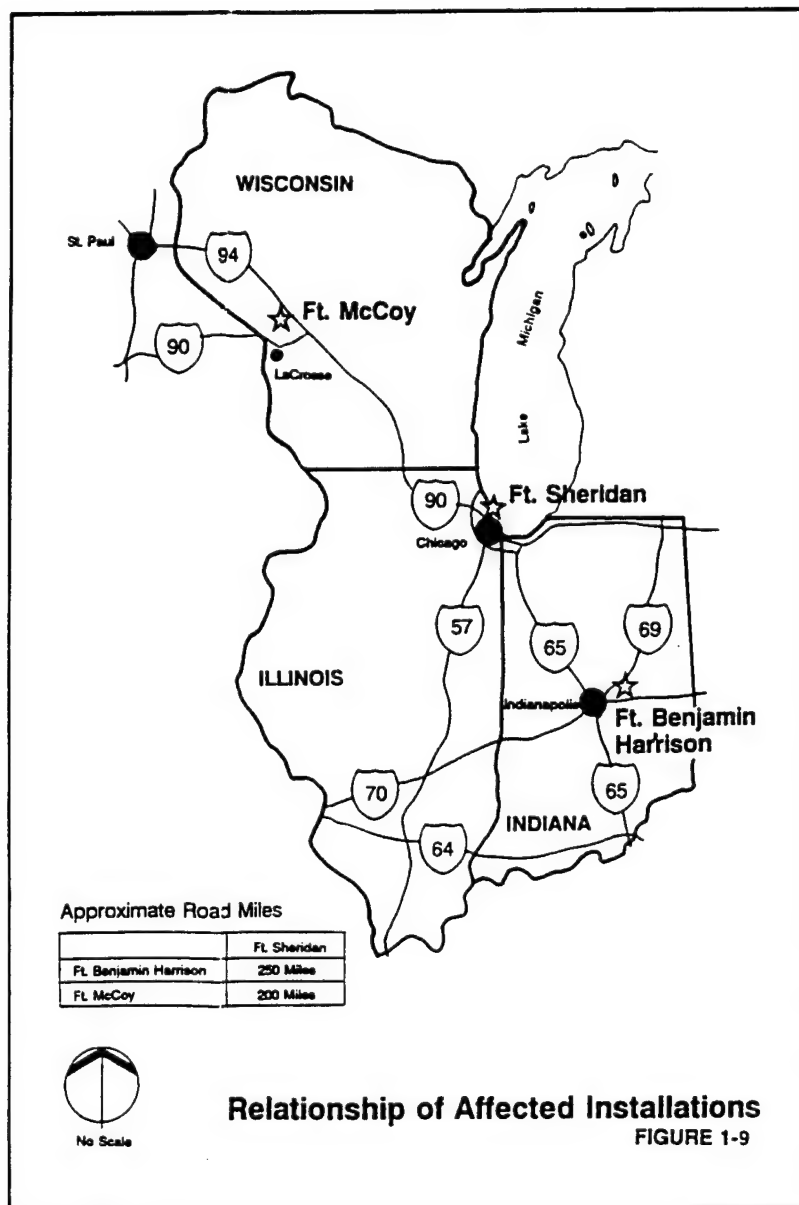
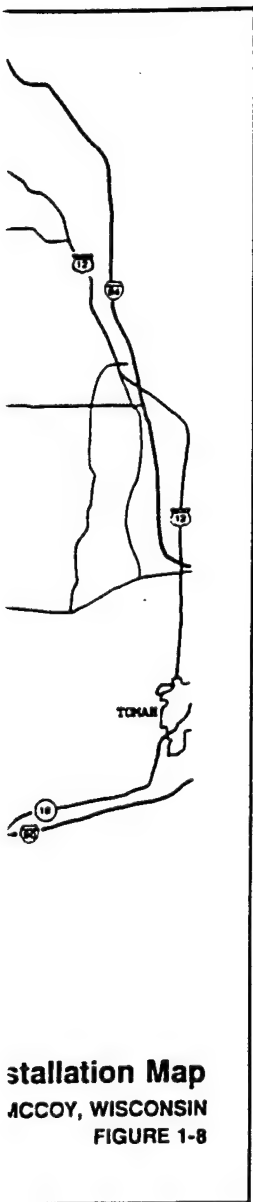




Source: U.S. Army Corps of Engineers, 1979.



FIGURES 1-7 THROUGH 1-9



Cultural Resources

- Potential impacts to historic buildings and sites. (Recommendations that the historic district remain intact and be available to the general public.)
- If impacts are unavoidable, suggested mitigation techniques included use of preservation easements, designation as local historic landmarks, review procedures prior to approval of new construction, and potential use of National Park Service or other jurisdiction in an oversight and interpretive role.

Safety/Solid Waste/Hazardous Waste

- Potential asbestos, radon, and/or lead-based paint on or within existing buildings.
- Potential for live ammunition buried within installation boundaries.
- Potential leaking underground storage tanks, munitions burning site contamination, and PCB spills.
- Potential landfill problems and status of closure plans, including identification of any hazardous waste sites.
- Identification of clean-up alternatives, costs and impacts on future use of the property.

Traffic/Transportation/Parking

- Potential traffic impacts of proposed reuse plan(s) on adjacent towns and the region.
- Adequacy of existing circulation and parking system.
- Potential reuse alternatives and their ability to take advantage of METRA rail service located in the area.

Utility Systems

- Potential need for water treatment plant modernization.
- Potential need for repair or replacement of sanitary sewer collection system. (Reported problems with excessive system inflow and discharge of raw sewage to Lake Michigan during heavy rainfall events.)
- Potential need for improvements to existing electrical distribution, heating, cooling and lighting systems including improvements required to enhance energy efficiency.
- Potential need for improvements to storm drainage system to reduce waste pollution, erosion or flood hazard. (Redeveloped shoreline property may need to include provision for on-site retention or management of stormwater.)

Economic

- Potential financial impact on Fort Sheridan employees.
- Potential impacts on local and regional economy.
- Potential impact on Highwood-Highland Park School District No. 111. (District includes 400 students from Fort Sheridan, or one-third of existing population. Action may result in loss of 25-30 staff. Recommended reimbursement of District financial support losses due to closure. Will continue to need impact aid funds during transition, and new development must be income producing to provide adequate school district funds.)

Community Facilities

- Potential impacts to fire and police protection capabilities. (Costs to adjacent communities, ability to support new systems, etc.)
- Potential impacts to users of Fort Sheridan's medical facilities including local veteran population.
- Potential loss of other community facility services to area military retirees.
- Potential impact on Fort Sheridan Cemetery. (Future management and expansion potential.)
- Potential loss of shoreline access for public recreational purposes.

Potential Reuse Alternatives. A number of reuse suggestions and alternatives were presented during the initial scoping process as summarized below:

- Potential designation of some existing homes and/or apartments to serve mentally and physically disabled.
- The University of Illinois at Chicago (UIC) submitted a proposal to recommission a substantial part of Fort Sheridan as a "Great Lakes Environmental and Aeronomic Graduate Education and Research Center" within a maritime conservation and lakefront recreation park. This center would be established through a consortium of universities under the leadership of UIC. This proposal recommended a formal feasibility study by UIC to evaluate specific merits and details.
- The North Suburban Sierra Club (as a member of the Advocates for the Public Interest in Fort Sheridan) suggested a range of reuse options including academic, community service, office, cultural arts or museum facilities and housing.
- The Kaja Group presented a plan for the establishment of the "Broadlands" under the jurisdiction of a newly created Village of Fort Sheridan. This plan proposed the development of three zones including a northern zone for newly developed U.S. Army facilities and public access; a central historic zone for Broadlands health and research activities; and a southern zone for residential housing.
- The Advocates for the Public Interest in Fort Sheridan presented a draft plan intended to meet a broad range of reuse goals. Key elements of this plan would include maintenance and enlargement of the military cemetery; provisions for the U.S. Army Reserve, the Commissary and PX facilities, and military and middle income housing; maximization of public access and use of the property; and leasing of the office and residential units to generate operation and maintenance income. The group also proposed a privately funded reuse study to expand on these basic concepts.
- Support was voiced for:
 - The potential ownership of the installation by the National Park Service, the Lake County Forest Preserve District or the Illinois Department of Conservation.
 - The need to receive a fair market price for the land to offset base closure expenses.
 - The concept of maintaining Fort Sheridan under single ownership and management (prohibiting annexation by adjacent communities).
 - The reuse of Fort Sheridan to maximize open space and recreational benefits for the general public with emphasis on lake access and park resources.

- Reuse of existing buildings to provide low and moderate income housing to meet established Lake County needs.

1.5.2 Fort Benjamin Harrison Public Scoping Meeting

The Fort Benjamin Harrison public scoping meeting was held on June 8, 1989, at Lawrence High School. In addition to several individuals, a number of organizations were represented at this meeting including the City of Indianapolis (Division of Planning), City of Lawrence, and the Friends of White River. A summary of issues raised at this meeting is provided below.

Water Resources

- Potential impact to aquifer along Fall Creek (or others) including impact on quality and quantity.
- Potential impact of actions on Fall Creek (a major tributary of the White River) resulting from increased erosion, pollutant runoff, and/or loss of natural vegetative cover.
- Potential need for new sanitary sewer discharge permit(s) along Fall Creek (number, volume, concentrations).
- Potential water quality impacts associated with increased usage of the current landfill at Fort Benjamin Harrison.

Floodplains

- Potential impacts of proposed action on existing floodplains and adequate consideration of permit requirements including Section 404, etc.

Wildlife Resources

- Potential impact to existing wildlife populations and habitat (deer, unique mammal species, heron rookeries, etc.).

Plant Resources

- Potential impact of building improvement plans on existing forest resources, landscaping, and vegetative buffer zones.

Noise

- Potential increase in noise pollution as a result of increased helicopter traffic or construction of airport facilities.

Solid and Hazardous Waste

- Potential impact of additional personnel on solid waste and hazardous waste generation.

Traffic

- Potential traffic impacts of relocated personnel. (Specific references to potential impacts on Franklin Road, Fall Creek Road, Oakland Road and Sunny Side Road, based on previous traffic studies conducted by the City of Indianapolis.)

Land Use

- Potential impact on Lawrence Park. (Currently used per terms of a lease agreement between the City of Lawrence and the installation.)

Housing

- Potential impact of relocated personnel on off-base housing. (What percentage of relocated personnel will be located in on-base versus off-base housing.)

1.6 Special Considerations and Limitations of the EIS

1.6.1 Provisions of the Base Closure and Realignment Act

The focus or scope of this EIS is directed, in part, by Section 204 of the Base Closure and Realignment Act (copy attached as Appendix A to this EIS). As discussed in Section 1.1 above, the Act exempts the decision to close Fort Sheridan and to realign its tenant units from review in this EIS. Similarly, the EIS does not address the financial data or estimated cost savings that were considered during the base closure and realignment decision making process.

1.6.2 Minor Realignment Actions

The relocation of units to leased space in Chicago, and other minor realignments as shown in Table 1-1 (Savanna Army Depot, Great Lakes Naval Stations, Fort Leavenworth, Fort Leonard Wood, Fort Belvoir, Fort Lee, Fitzsimons Army Medical Center, and Fort Shafter) will have no significant adverse impacts. This conclusion is based on the small numbers of personnel involved, the fact that the mission of these personnel is primarily administrative in nature, and that no new construction will be required to support these realignments. Therefore, these implementation actions will not be further addressed or evaluated in this document.

1.6.3 Base Realignment and Closure Environmental Restoration Strategy

The Department of Defense is committed to the investigation and remediation of hazardous waste materials and sites as needed to allow for the safe and efficient reuse of Fort Sheridan property. The Army will conduct studies in accordance with the Installation Restoration Program (IRP) to identify contamination. For base closure and realignment actions, the scope of the IRP will be expanded to include asbestos, PCB's and other potential contamination not normally investigated as part of the IRP. The IRP process includes three major steps as follows:

1. Preliminary Assessment/Site Inspection
2. Remedial Investigation/Feasibility Study
3. Remedial Design/Remedial Action

This process has been initiated at Fort Sheridan through the preparation of an "Enhanced Preliminary Assessment Report" prepared under the guidance of the Base Closure Division of The U.S. Army Toxic and Hazardous Materials Agency (USATHAMA). The results of the Fort Sheridan Preliminary Assessment Report have been summarized in Section S.3.7.3 of this EIS. The continuing IRP process will be conducted independently of the closure and realignment actions addressed in this EIS. The statement of clearance for hazardous or toxic substances, to be provided by USATHAMA, will not be completed until after the Record of Decision (ROD) on the Environmental Impact Statement. The Army will stipulate this fact in the ROD, along with a commitment that all installation restoration requirements will be met before excess property can be disposed of.

1.6.4 Cultural Resource Evaluations

A Programmatic Agreement (PA) was executed on February 5, 1990 between the Department of the Army, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers. The PA stipulates that Section 110 and Section 106 responsibilities under the National Historic Preservation Act (NHPA) will be completed by the Army prior to initiation of construction activities or disposal of lands. In instances where the Army NHPA responsibilities have not been fully implemented, the Army will stipulate in the ROD that the NHPA has not yet been complied with, and that no action will be taken which would foreclose completion of the Army's responsibilities under the NHPA. A copy of the referenced Programmatic Agreement has been attached to this EIS as Appendix B.

1.6.5 General Property Disposition Process

The general process to be followed in determining the final transfer and/or sale of surplus property at Fort Sheridan is described below:

1. The Office of Chief of Engineers (OCE) will offer the real estate to the Department of Defense (DOD) and other Federal agencies for continued Federal use. Steps in this process include:
 - a. Department of Defense agencies have 20 calendar days to express interest in the property with an additional 20 calendar days to express a firm requirement. Per Section 204 (a) (3) of Public Law 100-526, Fort Sheridan property may be transferred to another DOD department or instrumentality without reimbursement. However, the Secretary shall give priority to any department that agrees to pay fair market value (FMV) on the basis of the use of the property on December 31, 1988.

- b. The Office of Chief of Engineers (OCE) will offer the property to other Federal agencies. Each agency must inform OCE if there is a tentative or firm requirement for the property within 30 calendar days.
 - c. If a tentative requirement exists, agencies have an additional 30 calendar days to advise OCE if there is a firm requirement.
 - d. Within 60 calendar days after advice to OCE of a firm requirement, the agency shall furnish OCE a request for transfer of the property.
- 2. Title V of the Stewart B. McKinney Homeless Assistance Act (42 U.S.C. 11411) sets out a process by which unutilized or underutilized federal properties may be made available to the homeless. Concurrent with the federal screening, information about such properties is sent to the Department of Housing and Urban Development (HUD) for that agency to determine whether the property is suitable for facilities to assist the homeless. The Army intends to meet all its responsibilities under the McKinney Act.
 - 3. If there is no Federal interest, the OCE will declare the property surplus. It can then be made available for various public benefit purposes at less than FMV. A decision to sponsor a public benefit discount is discretionary and will be considered on a case-by-case basis. Notices will be sent to the state single point of contact, the Governor, and County and local officials for their information.
 - 4. If there is no federal sponsor for a public benefit discount, the property can then be offered to a state or local government through a negotiated disposal. The estimated FMV of the property must be obtained.
 - 5. If a negotiated disposal resulting from state or local government does not occur, the property can then be made available to the private sector under a competitive bid process. The FMV of the property must be obtained.

CHAPTER 2

Implementation Alternatives

CHAPTER 2 IMPLEMENTATION ALTERNATIVES

2.1 Introduction

As discussed in Chapter 1, the Base Closure and Realignment Act eliminated any requirement for this EIS to consider the need for closing Fort Sheridan, transferring functions to other locations, or alternatives to military installations selected for closure and realignment. However, this EIS does consider alternative implementation actions including alternative siting concepts for the planned Reserve Component Area at Fort Sheridan, alternative reuse concepts for surplus property at Fort Sheridan, and alternative realignment construction programs at Fort Benjamin Harrison and Fort McCoy. These alternatives are presented and discussed in this Chapter.

2.2 Closure of Fort Sheridan

There are no alternatives to the closure of Fort Sheridan per the provisions of the Base Closure and Realignment Act. However, there are two implementation components of the closure action that are subject to further consideration as discussed below.

2.2.1 Relocation Versus Inactivation of Headquarters 4th U.S. Army

On January 29, 1990, the Department of the Army announced a proposal to inactivate Headquarters 4th U.S. Army in FY 1992. If the Army's proposal is approved, the 4th U.S. Army Headquarters and related support functions would not relocate to Fort Benjamin Harrison as recommended by the Base Realignment and Closure Commission, and as analyzed in this EIS. The headquarters would be eliminated and support functions would be reassigned in accordance with geographic responsibilities assumed by other Continental U.S. Armies. Proposed inactivation of Headquarters 4th U.S. Army will have no effect on the closure of Fort Sheridan (other than those disclosed in this document), but will affect realignment actions at Fort Benjamin Harrison.

If Headquarters 4th U.S. Army is inactivated, the realignment construction program at Fort Benjamin Harrison would be decreased accordingly. The impacts of this potential inactivation are not discussed further in this EIS.

2.2.2 Fort Sheridan Reserve Component Area Alternatives

Fort Sheridan currently includes a 14 acre U.S. Army Reserve Center (USARC) located in the northwest corner of the installation. This area will continue to be used for reserve activities under all reuse options. In addition, per recommendations of the Commission on Base Realignment and Closure, an additional land area (approximately 100 acres including the existing USARC) will be retained by the government for use as an expanded Reserve Component Area.

Seven areas have been defined and considered by the Army for the Reserve Component Area.

These alternative site areas include:

Area A - is a southern area development plan consisting of approximately 60 acres located along D Street, B Street and Patten Road.

Area B - is a southern area development plan consisting of approximately 90 acres located between Waukegan Avenue and Patten Road.

Area C - is a southern area development plan consisting of approximately 60 acres located between B Street and Waukegan Avenue and bordered by the ravine to the north and the installation boundary to the south.

Area D - is a northern area development plan consisting of approximately 60 acres located adjacent to the existing 14 acre Reserve Center.

Area E - is a northern area development plan consisting of approximately 90 acres located adjacent to the existing 14 acre Reserve Center.

Area F - is a northern area development plan consisting of approximately 90 acres located adjacent to the existing 14 acre Reserve Center. This option would also retain the Consolidated Training Facility located in the south area.

Area G - is a southern area development plan consisting of approximately 90 acres located along Waukegan Avenue.

Additionally, each area was analyzed for two options. These options were:

Option 1 - requires the relocation and consolidation of all reserve units on-post to within the proposed area to be retained while retaining leased facilities for those units located off-post.

Option 2 - requires the relocation and consolidation of all reserve units on-post as well as those reserve units currently occupying leased facilities off-post to within the proposed area to be retained. Additionally, this option explores the possibility of relocating the U.S. Army Recruiting Battalion and the U.S. Recruiting Brigade currently destined to move off-post, back onto the installation after a 3-5 year period in leased space.

Finally, each area and option was analyzed for three variations which were designed to measure the impact of retaining family housing located on Fort Sheridan for DOD use. These variations were:

Variation 1 - assumed that no family housing would be retained.

Variation 2 - assumed that all family housing would be retained.

Variation 3 - assumed that only family housing area 5 (located at the southeast corner of the installation near the south gate) would be retained. Family housing area 5 was chosen because it is located on the perimeter of the installation and contains the largest number of housing units.

This analysis provided for a potential of 42 possible alternatives. However, Areas E and F were eliminated primarily because Area D, if selected, could accommodate all reserve units both on and off-post without retaining the additional acreage proposed by E and F. Additionally, it was decided not to analyze Area B for Option 1 because it was evident that if Area B could meet the requirements of Option 2 it could also meet the requirements of Option 1 which involved relocating less than half the personnel as in Option 2.

These eliminations resulted in 27 remaining alternatives for the Reserve Component Area which are currently being considered by the Army based on the following factors:

- Compatibility of existing buildings with proposed units.
- New construction and/or renovation of existing facilities.
- Off-post leasing requirements.
- Capability to accommodate Reserve Component personnel.
- Open land area available for future growth.
- Family Housing requirements.
- Adequacy of parking facilities.
- Potential loss of green space.
- Compliance with Army and other applicable regulations.
- The environmental impacts of proposed actions.
- The loss in value of the land proposed for disposal.
- Economic feasibility/cost.

The boundaries of the two areas that have been eliminated from further consideration (Area E and Area F) are illustrated on Figure 2-1. The boundaries of the five areas subject to further evaluation by the Army, and therefore considered in this EIS, are illustrated on Figure 2-2.

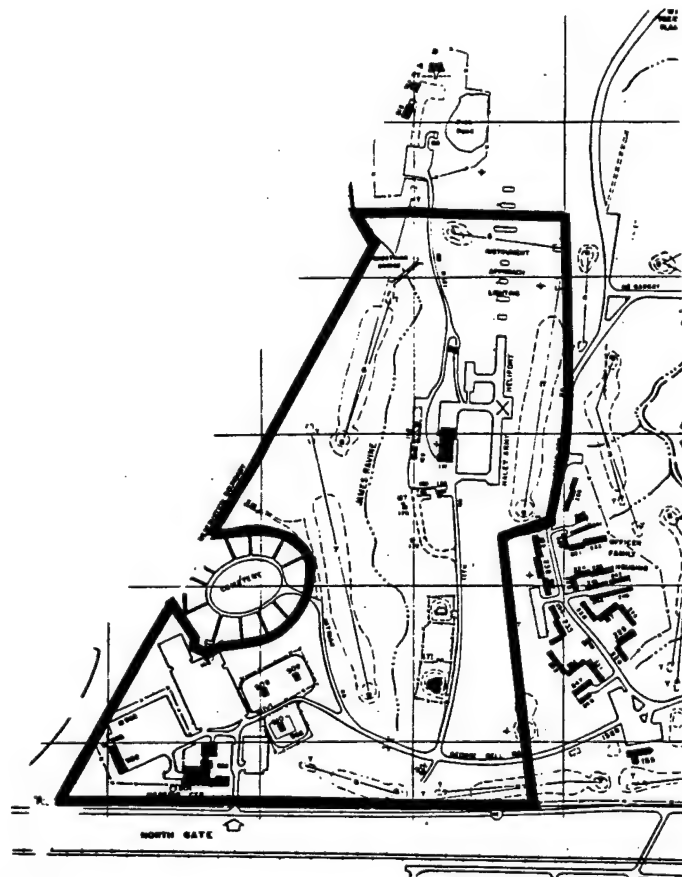
2.2.3 Other Considerations

Prior to release of this EIS, the U.S. Navy proposed to acquire the on-post housing or a portion thereof, at Fort Sheridan. There are also discussions regarding the establishment of a VA National Cemetery. Should these proposals become reasonable reuse alternatives, the responsible federal agencies will prepare appropriate environmental analyses.

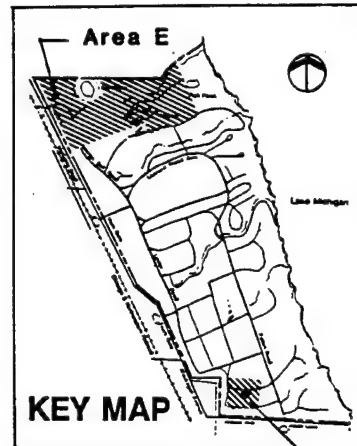
2.3 Fort Sheridan Reuse Alternatives

2.3.1 Status of Reuse Planning Efforts for Fort Sheridan

The Base Closure and Realignment Act included provisions for the DOD Office of Economic Adjustment (OEA) to assist state or local jurisdictions located near a military installation to be closed. In the case of Fort Sheridan, the OEA has helped to form the Fort Sheridan Commission. The Fort Sheridan Commission includes representatives from local jurisdictions and a wide range of public and private interest groups.



Area E



Consolidated Training Facility
Included in Area F.

Area F: Area F was identical to Area E shown above except that it also included retention of the existing Consolidated Training Facility located in the extreme southwest corner of the installation. (See key map.)

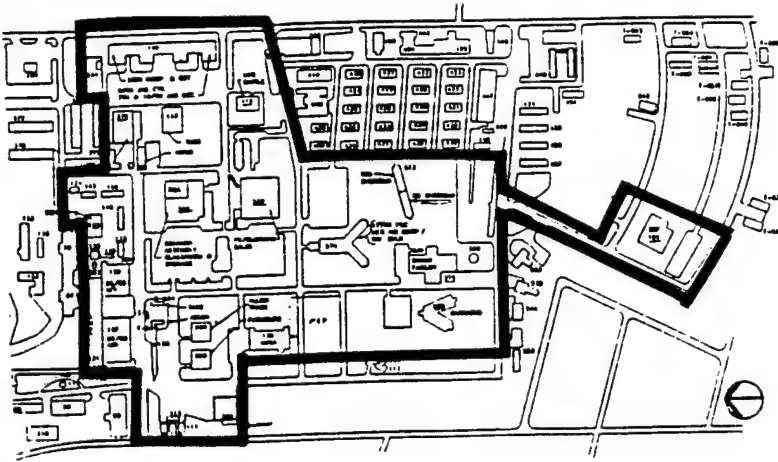


No Scale

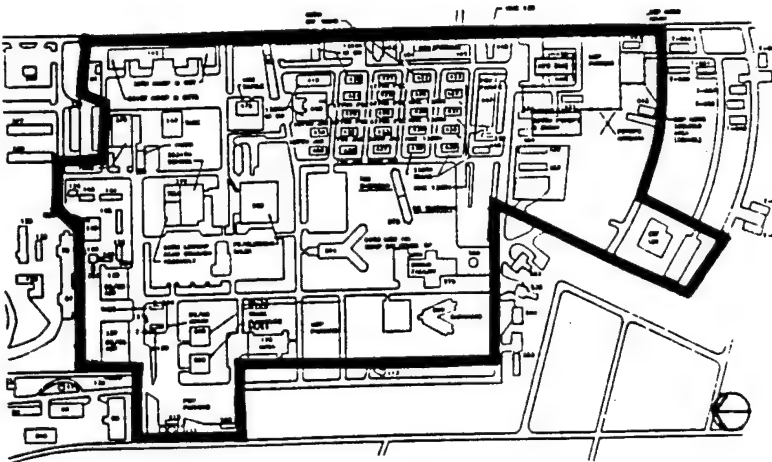
Reserve Component Area Alternatives Considered But Eliminated

FORT SHERIDAN, ILLINOIS

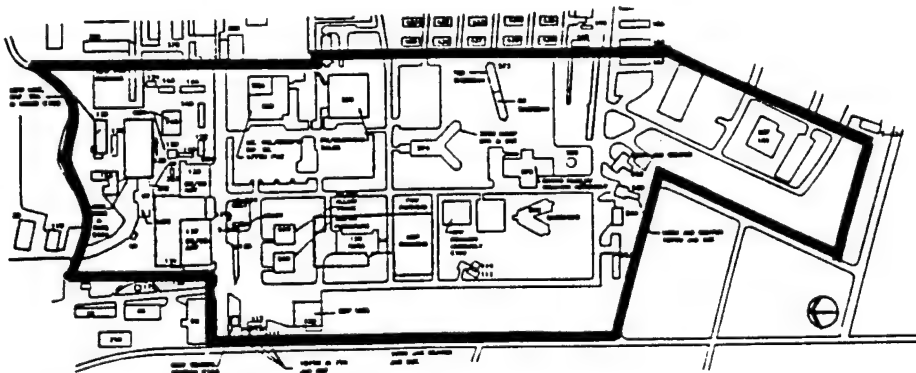
FIGURE 2-1



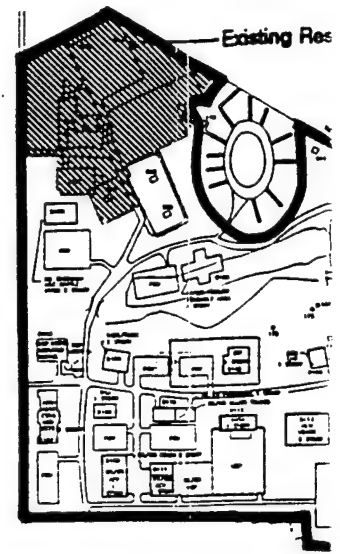
Area A



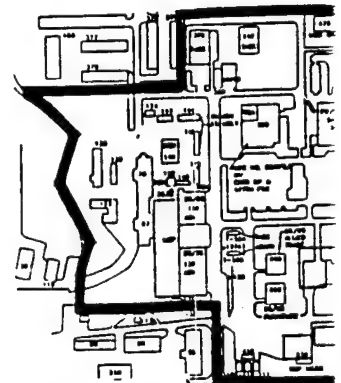
Area B



Area C

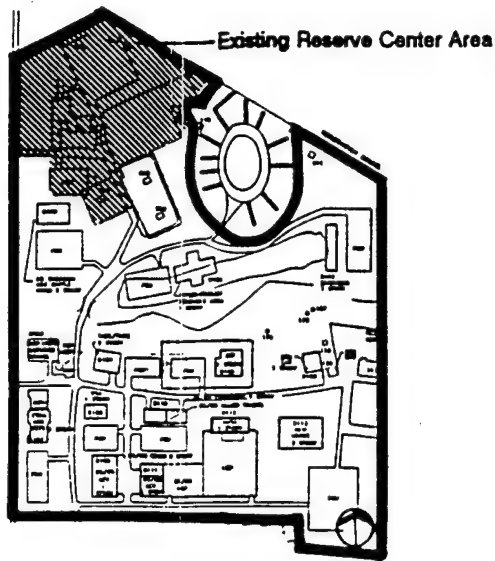


Area D

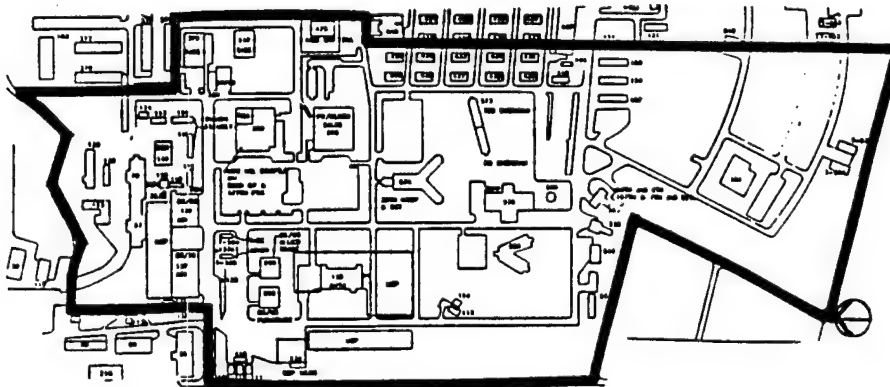
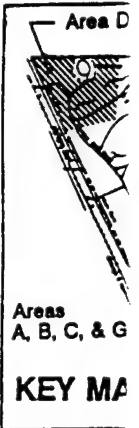


Area G

Note: Areas A, B, C, D, and existing 14 acre Resen Sheridan. (As illustrat



Area D

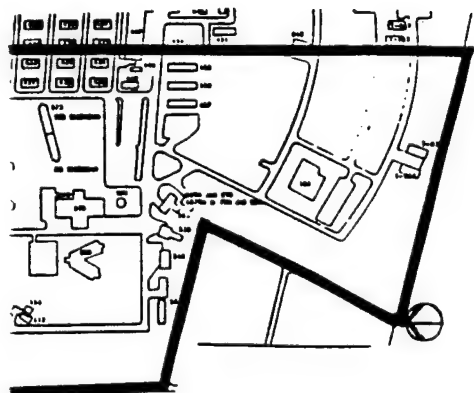
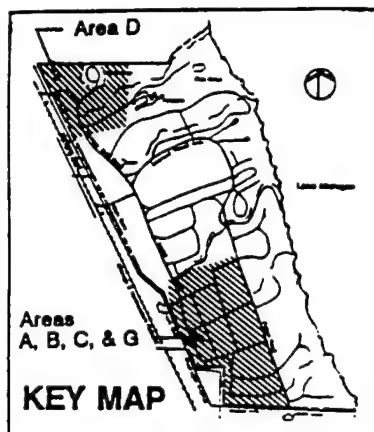


Area G

Note: Areas A, B, C, D, and G would all include continued operation of the existing 14 acre Reserve Center located at the northwest corner of Fort Sheridan. (As illustrated on Area D above.)

Reserve Component Area A
Subject to Further
FORT SHERIDAN

of Area



include continued operation of the
cated at the northwest corner of Fort
) above.)

Reserve Component Area Alternatives Subject to Further Evaluation

FORT SHERIDAN, ILLINOIS

FIGURE 2-2

The Fort Sheridan Commission has started work on a detailed reuse plan for Fort Sheridan based on ongoing local analysis of facts, alternatives and implementation capabilities. As of early February, 1990, this Commission had completed the formation of ten advisory panels including:

- | | |
|--------------------------|---|
| 1. Environment | 6. Public Officials |
| 2. Education | 7. Recreation and Open Space |
| 3. Business and Commerce | 8. Transportation, Utilities and Infrastructure |
| 4. Historic Preservation | 9. Veterans Services |
| 5. Private Citizens | 10. Planning and Land Use |

It is anticipated that these advisory panels will be active throughout the Fort Sheridan closure, detailed reuse planning and plan implementation stages. In addition, the Fort Sheridan Commission will select a professional firm to prepare a detailed land reuse study based upon a full range of local interests and concerns.

The reuse plan ultimately developed by the Fort Sheridan Commission, the general reuse alternatives identified in this EIS, and other plans that are likely to be forthcoming will all be considered by the DOD prior to final disposal of property at Fort Sheridan.

2.3.2 Factors Influencing the Reuse of Surplus Property at Fort Sheridan

The ultimate reuse plan for Fort Sheridan will be a function of ownership and market conditions. As described in Section 1.6.5 of this document, the potential exists for all or part of the surplus property at Fort Sheridan to be transferred or sold to interested federal, state or local government entities. Government ownership would be based on recognized public or agency needs, and would not be directly dependent on market conditions. However, private ownership of all or part of the property will be directly related to the potential for a reasonable economic return on investment.

No attempt has been made to analyze or verify the economic feasibility of the reuse concepts discussed in this document. Rather, the reuse alternatives are intended as general planning concepts which have been developed for the purpose of evaluating probable environmental consequences.

In addition to market forces, any future use plan for Fort Sheridan should consider a number of physical development factors. These factors include:

- Protection or consideration of the Lake Michigan shoreline, and the sensitive bluff and ravine environments within installation boundaries.
- Preservation of the major Fort Sheridan Historic District and its environs in accordance with specific regulations and requirements.
- Maintenance and operation of the cemetery currently located on installation property.

- Operation and expansion of the Reserve Component Area to be maintained on some portion of installation property.
- Avoidance of previous landfill areas and other sites that may ultimately be determined to pose development constraints.
- Compatibility of proposed reuse activities with adjacent community land use plans and zoning regulations.

These factors were considered in the formulation of conceptual reuse alternatives to be evaluated in this EIS as discussed below.

2.3.3 Reuse Alternatives to be Considered

As noted in Chapter 1 (Section 1.5.1), a number of reuse concepts were presented during the initial scoping process. These concepts included:

- Development of a Graduate Education and Research Center within a lakefront park (UIC proposal).
- Mixed use development to include academic, community service, office, cultural arts, museum and/or housing (North Suburban Sierra Club).
- Development of a health and research center with adjacent residential development (The Kaja Group).
- Mixed use development to include continued operation of the cemetery, provisions for the U.S. Army Reserve Center, office and housing development, and maximization of public access and use of the property (The Advocates for the Public Interest in Fort Sheridan).

The proposals listed above, as well as other potential plans for the reuse of Fort Sheridan, can be summarized in the context of the following future reuse alternatives:

- Alternative 1. Single Purpose User
- Alternative 2. Industrial
- Alternative 3. Commercial Center
- Alternative 4. Public Recreation
- Alternative 5. Resort Conference Center/Residential
- Alternative 6. Mixed Use
- Alternative 7. Residential

A general discussion of each of these reuse concepts is provided below.

Alternative 1 - Single Purpose User. This alternative assumes that the entire area available for reuse at Fort Sheridan would be developed, operated and maintained by a single private user or governmental agency. The historic district and existing permanent structures would be integrated into an overall development plan that supports and promotes an image for a single user group. Potential public, quasi-public or private users that could be interested in sole source ownership include colleges/universities, medical organizations, research groups, private corporations, religious organizations and various governmental agencies.

At this time, no single purpose user has been identified or expressed a formal interest in the Fort Sheridan property. Furthermore, reuse of the entire site under a single owner is unlikely due to the size of the property area, and related cost of acquisition, adaptive reuse, development and maintenance. Because of these limitations, this alternative will not be further evaluated in this EIS.

Alternative 2 - Industrial Use. This alternative considers the potential for reuse of Fort Sheridan property for a full range of industrial activities. These could include warehouse facilities, light industry and/or heavy industry. The site is served by rail which could provide adaptive reuse opportunities for industrial use and/or warehousing. However, the majority of the buildings and the existence of the National Register Historic District provide a significant deterrent for use of the site for industrial purposes.

In addition, industrial use activities would not be compatible with adjacent land use and zoning patterns; and major roadway access patterns are not capable of supporting a major industrial development. Therefore, this reuse alternative will not be evaluated further in this EIS.

Alternative 3 - Commercial Center. Reuse of the Fort Sheridan site as a commercial center considers developing the area outside the historic district as a large shopping mall. This reuse alternative would not require all the available land area and therefore would require additional commercial retail uses to be developed. Additional commercial retail uses might include warehouse outlet centers, food chains, furniture marts, car dealerships and other commercial retail uses of a similar nature.

This reuse alternative is not highly compatible with adjacent community land use patterns and zoning regulations. In addition, it offers little or no potential to protect the unique natural and cultural resources on the site. Because of these constraints, this reuse alternative will not be evaluated further in this EIS.

Alternative 4 - Public Recreational Use. This alternative considers the reuse of all or most of the surplus property at Fort Sheridan for public recreation use. This concept could include development of open space for active and passive recreational uses; conservation of environmentally sensitive areas including the ravine, bluff and beach areas; preservation of forested areas, and restoration/expansion of the existing golf course, swimming pool, football field, softball field, tennis courts and gymnasium. This reuse alternative could provide recreational park land for a population base of regional magnitude.

This type of public recreation complex would require extensive support from one or more public recreation agencies. To date, no plans for this type of development have been identified. In addition, a public recreation concept (by itself) does not offer strong potential for the preservation

of the historic district, or support of the local tax base. Therefore, this reuse alternative will not be further evaluated in this EIS.

Alternative 5 - Resort Conference Center/Residential Use. This reuse alternative envisions the development of the historic district as a primary tourist attraction and central theme for the surrounding uses. This concept is distinguished from Alternative 1 (Single Purpose User) by the assumption that several entities could participate in a long-term, phased development plan. Facilities readily adaptable for use as a resort conference center already exist at Fort Sheridan. These include the golf course, stables, blacksmith shop, veterinary hospital, equestrian rink, parade grounds once used for polo and other equestrian events, swimming pool, gymnasium, theater, passive and active recreation areas, beach front and housing which could provide a variety of accommodation choices including hotel, bed & breakfast, villa time share, condominium or seasonal rentals.

Administrative buildings and other large building spaces are available to provide meeting/conference space to accommodate a wide variety of users. The combination of a resort atmosphere with that of a meeting/conference center would provide an opportunity for year round use. In addition, and in accordance with the preservation of the central theme established by the historic district, a residential component is also envisioned as a part of this reuse alternative. The continued use of existing residential units located around the parade field would preserve these structures as residential units and would provide an opportunity for permanent residents to enjoy the resort activities all year round. The proximity of Fort Sheridan to the Chicago area, the historic setting and lake front and its location in a prosperous area all contribute to this reuse alternative. The reintroduction of horses recreates the original character of the installation, and provides another source of entertainment, sport and general recreational activity. This reuse alternative is considered to have a sufficient amount of merit in its conceptual stage to warrant further environmental evaluation.

Alternative 6 - Mixed Use. Reuse of the Fort Sheridan site as a mixed use development concept would allow for residential, neighborhood/service oriented commercial, active and passive recreation, and office uses. Residential development would be included to make use of existing housing units with the possible adaptive reuse of some existing buildings in the historic district as townhouses. Commercial uses would be incorporated in this concept for the purpose of providing convenient access to neighborhood oriented shopping for the residential component of the development. Additional commercial uses associated with historic district tourist related activity would also be considered. Recreational uses integrated into the overall development plan should be both active and passive to use the existing recreational facilities and to encourage preservation of the natural areas, views and vistas. Office use, concentrated in the historic district core area could accommodate those types of users that would require a corporate center headquarters, research center, educational or institutional facility or general office space. The use of both existing facilities and the construction of new facilities are possible under this reuse alternative.

This alternative allows for the maximum use of historic resources, preservation of natural resources and provides a diverse economy of scale and use that is well integrated and compatible with the surrounding environment. It also allows for development in accordance with existing zoning and land use patterns. This concept is sufficiently flexible to accommodate virtually all of the reuse alternatives proposed at the initial scoping conference as discussed at

the beginning of this section. This option was deemed to have sufficient merit to warrant further evaluation in this EIS.

Alternative 7 - Residential Use. This reuse alternative would focus on maximizing the residential development potential of surplus property at Fort Sheridan. The concept would include a variety of housing types, styles, densities and price ranges integrated into an overall planned residential environment. All existing housing resources could be reused and additional housing resources could be made available through new construction and/or adaptive reuse of existing buildings. This concept would make use of the historic district buildings within established regulatory requirements and as a result would create attractive, rather unique living spaces. The reuse of the Fort Sheridan area for residential use would provide an opportunity to preserve open areas, natural areas and recreation resources such as the lake front. Existing permanent facilities and buildings such as the gymnasium, officer's club, community child care center, museum, commissary, gas station, golf club house, golf course and recreation areas are all uses that could be easily adapted into the residential reuse environment. These facilities and buildings all serve to strengthen the residential reuse concept. This alternative was considered to have sufficient merit to warrant further evaluation in this EIS.

2.4 Fort Benjamin Harrison Implementation Alternatives

2.4.1 Alternatives Considered But Eliminated - Fort Benjamin Harrison

The primary component of the implementation of realignment plans at Fort Benjamin Harrison is the method by which Headquarters 4th U.S. Army and Headquarters U.S. Army Recruiting Command (USAREC) will be accommodated. Alternative plans considered but eliminated by Fort Benjamin Harrison study teams include:

- The construction of two new facilities (one for each unit).
- The construction of one new facility to house both units.
- The accommodation of both units within existing space in Building No. 1.

Factors contributing to the elimination of the above-listed alternatives include the amount of space available in existing facilities, the cost of new facilities versus the cost of backfilling and/or renovating existing facility space, time required for construction and/or renovation, support facilities required for each action, compatibility of available space for intended uses and the number of on-post relocations of existing units and functions required.

2.4.2 Planned Action - Fort Benjamin Harrison

Current plans call for the location of Headquarters 4th U.S. Army within existing space in Building No. 1. A new facility will be constructed to accommodate Headquarters U.S. Army Recruiting Command. This new facility will be located near the Hawley Army Community Hospital. The new Headquarters will include an automated data processing area, a general purpose warehouse, and

a storage facility. Supporting facilities will include utilities, electric service, exterior lighting, paving, walks, curbs and gutters, parking, fire protection and alarm systems, storm drainage, sanitary sewers, information systems, and site improvements. Heating and air conditioning (400 tons) will be provided by self-contained systems to include electrical upgrades to present classrooms, and renovation of existing facilities to support base operations increases.

It is anticipated that a number of support facility projects will need to be constructed to accommodate the realignment of units from Fort Sheridan, and the net increase in military and civilian employees and students to be realigned from Fort Jackson, South Carolina (See Section 1.2.1).

Projects that were under consideration at the time this document was prepared are described below and illustrated on Figure 2-3. These projects are subject to further evaluation, modifications, deletions and additions. However, it is assumed that the potential construction projects identified herein are indicative of the general level of realignment construction activity that will be required.

Commissary Expansion. Construction of an addition to the existing commissary will include warehouse and administrative space. Support facilities will include utilities, paving, site improvements, fire protection and alarm systems, and renovation of interior walls and an outside wall.

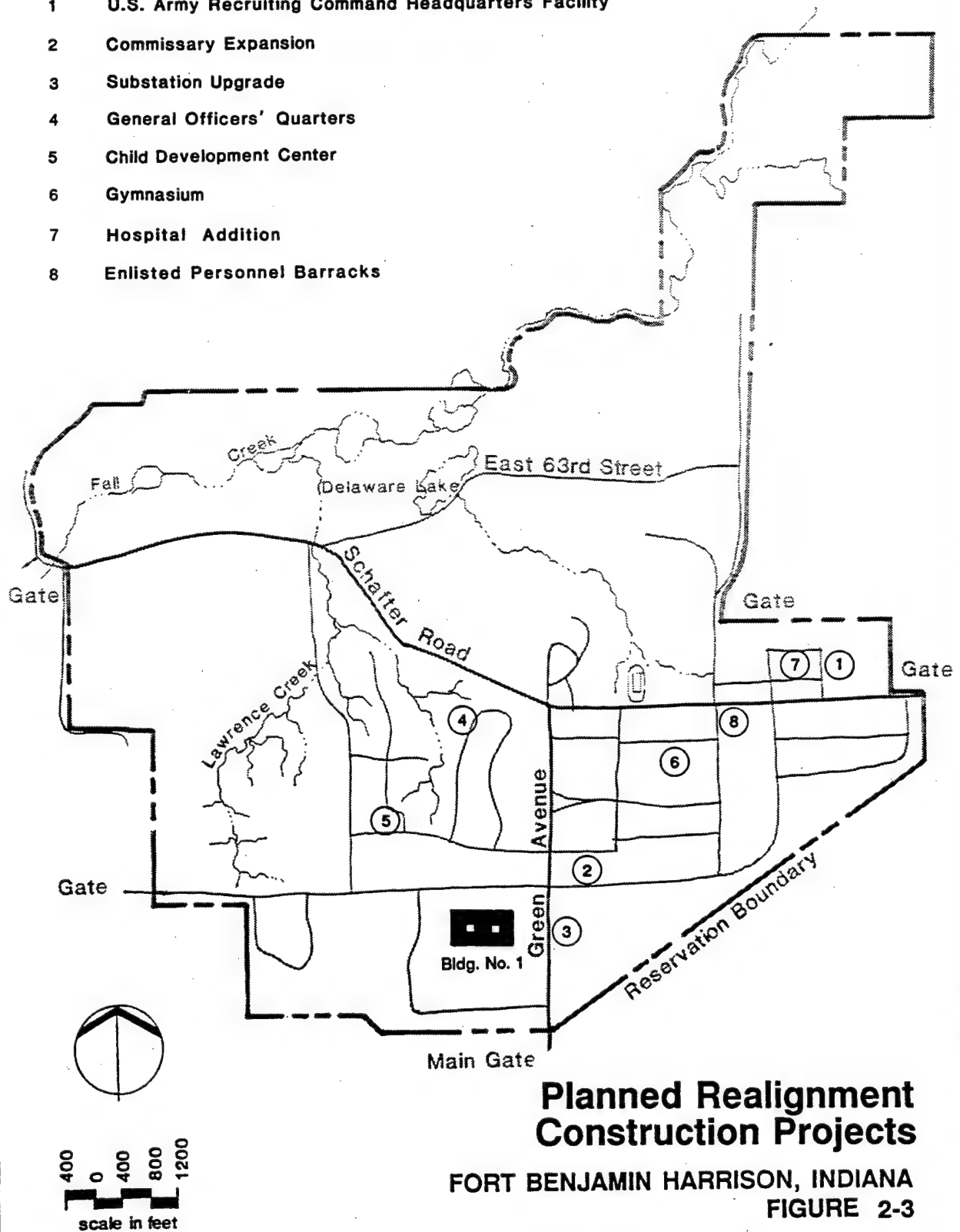
Substation Upgrade. Upgrade of the existing substation will include one additional 10/12.5 MVA transformer, panels, control boxes, switches, and distribution lines. Additional feeder lines will be provided to support increased electrical demand.

General Officers Quarters. Six General Officer Quarters will be upgraded to provide adequate housing. Work includes converting Building 655 from an existing Officer Quarters. This building was originally the post commander's quarters and is located in the Fort Benjamin Harrison Historic District. Recommendations for the interior of the house made in the Mariani and Associates 1988 study/survey of historically significant Army family quarters will be implemented where practical. Other work in the building will be the removal of kitchens on the 2nd and 3rd floors, construction of a full size bathroom on the first floor, and removal of a bedroom and an undersized bathroom on the first floor to construct a kitchen. Completion of this project will return the building to its original design.

Child Development Center. A standard-design child development center will include separate child activity modules for infants, toddlers, and preschool age children, kitchen, lobby and reception areas, director's office, general storage closets, staff room, isolation room, mechanical room, laundry room, janitor's closet, toilets, playground, outdoor storage sheds, and fencing. Supporting facilities include utilities, electric service, paving, walks, curbs and gutters, parking, storm and sanitary sewers, fire protection and alarm systems, information systems, and site improvements. Heating and air conditioning will be provided by self-contained systems.

LEGEND

- 1 U.S. Army Recruiting Command Headquarters Facility
- 2 Commissary Expansion
- 3 Substation Upgrade
- 4 General Officers' Quarters
- 5 Child Development Center
- 6 Gymnasium
- 7 Hospital Addition
- 8 Enlisted Personnel Barracks



Planned Realignment Construction Projects

FORT BENJAMIN HARRISON, INDIANA
FIGURE 2-3

Gymnasium. Construction of a new gymnasium will include a multipurpose court, racquetball/handball courts, weight room, showers, locker rooms, storage, and office area. Support facilities include all required utilities, fire protection, associated parking, and site improvements. Heating will be provided by steam from the central heating plant.

Enlisted Personnel Barracks. Construction of one standard design barracks building to provide a total of 212 spaces for enlisted personnel. The primary facility will also include one standard design large company administration and supply facility. Support facilities will include all utilities, communications, fire protection and alarm systems and paving.

Hospital Addition. Construction of an addition to Hawley Army Community Hospital to provide expanded work space for Dental, Troop Medical Clinic, Physical Exam and several clinical support functions. Support facilities will include all utilities, walkways, parking, fire protection and site improvements.

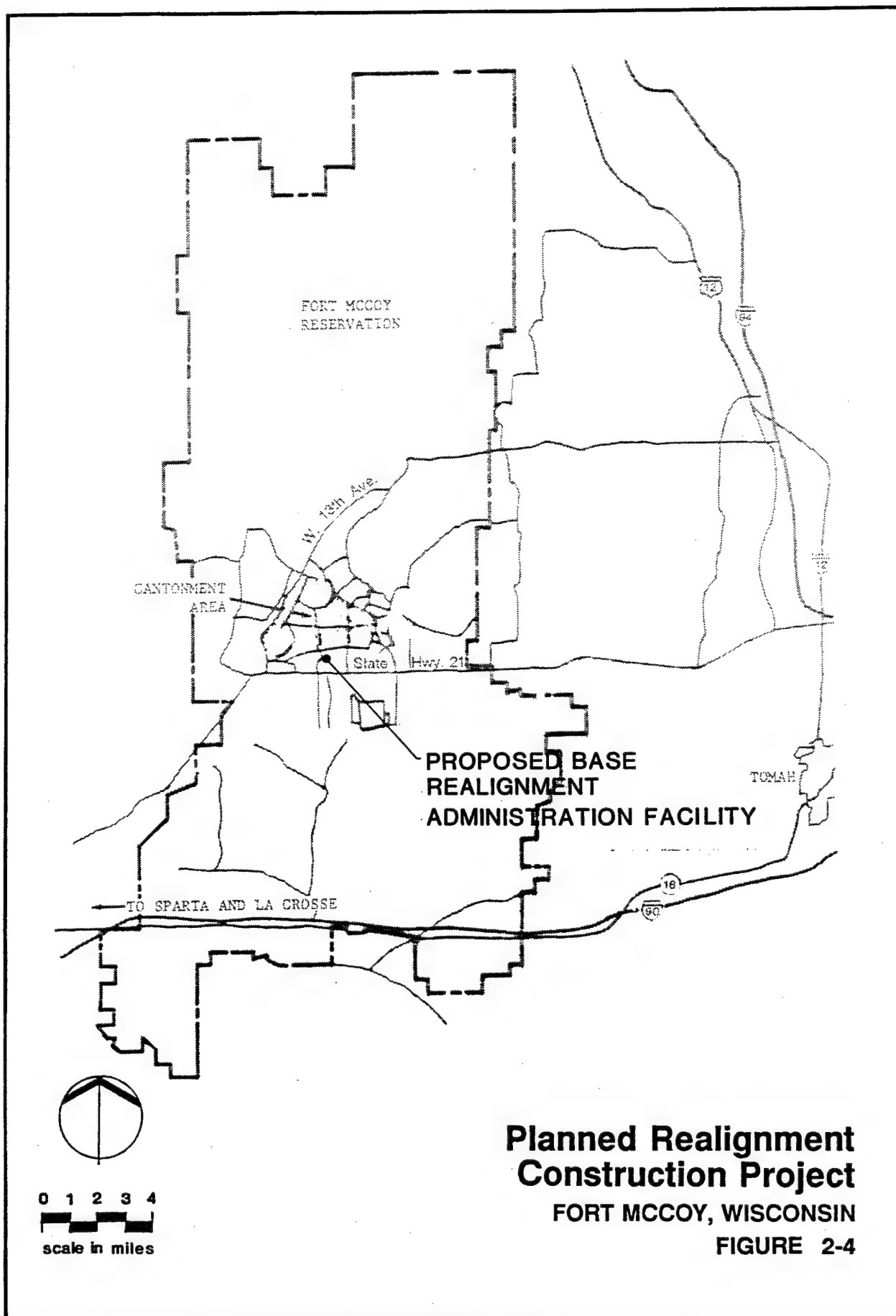
2.5 Fort M^cCoy Implementation Alternatives

2.5.1 Alternatives Considered But Eliminated - Fort M^cCoy

Actions considered but eliminated from further consideration at Fort M^cCoy consist of the use of various existing buildings to house administrative units realigned from Fort Sheridan. All of the existing buildings considered for this purpose were found to be inadequate for the intended use without major renovations. Therefore, a decision was made to construct a new facility near the location of existing Building 2187 as discussed below.

2.5.2 Planned Action - Fort M^cCoy

A new 30,620 SF building will be constructed at Fort M^cCoy to house the increased staffing resulting from the realignment of personnel from Fort Sheridan. The building is to be sited as shown on Figure 2-4 and includes a 200 space privately owned vehicle (POV) parking area, all necessary utilities, and site improvements. Existing Buildings 2181 and 2187 will be demolished and removed from the site.



Source: Ft. McCoy Directorate at Engineering and Housing, 1989

CHAPTER 3

Affected Environment

CHAPTER 3 AFFECTED ENVIRONMENT

3.1 Introduction

The planned action investigated in this Environmental Impact Statement (EIS) will have impacts on both the closing installation (Fort Sheridan), and the primary receiving installation (Fort Benjamin Harrison). The relatively minor realignment of some Fort Sheridan activities to Fort M^cCoy may also result in some impacts. In order to assess the impacts of the planned actions, it is necessary to describe the affected environment at each installation. Accordingly, this Chapter has been prepared in the context of three sections. Section S addresses Fort Sheridan conditions, Section H addresses Fort Benjamin Harrison, and Section M summarizes existing conditions at Fort M^cCoy.

SECTION S - FORT SHERIDAN AFFECTED ENVIRONMENT

S.3.2 Mission/Functional Activities

Fort Sheridan provides administrative and logistic support to a number of Army activities. The present mission of Headquarters, Fort Sheridan consists of the following activities:

- Administers, operates, and maintains all installation facilities and provides required administrative and logistic support to Headquarters 4th U.S. Army; Headquarters U.S. Army Recruiting Command; U.S. Army Recruiting Battalion and Brigade, and other tenants.
- Commands and renders support to all assigned personnel and units.
- Renders support to U. S. Army Reserve and Army National Guard units performing on-site annual training and other Reserve Component activities.
- Provides designated administrative and logistical support to Army units and activities; organizations, units, and personnel of other military services; and to other departments or agencies of the federal government, as prescribed by regulations, directions, or agreements.
- Provides maintenance and training support in advanced armament for U.S. Army Reserve and Army National Guard units.
- Operates training programs and facilities, including pistol and rifle ranges at the Training Area, Joliet, Illinois, for use by Active Army, U.S. Army Reserve, Army National Guard and other units.
- Prepares and implements, as directed, operations, emergency, and contingency plans.

The following is a list of the major tenant units at Fort Sheridan:

- Headquarters 4th U.S. Army
- Headquarters U.S. Army Recruiting Command (USAREC)
- U.S. Army 4th Recruiting Brigade
- U.S. Army Recruiting Battalion, Chicago
- U.S. Army Readiness Group
- 51st Ordnance Detachment (EOD)
- U.S. Army 4th Recruiting Board
- U.S. Army Information Systems Command
- Fort Sheridan Field Office 902nd Military Intelligence Group
- Fort Sheridan Field Office 1st Region U.S. Army Command
- Fort Sheridan Field Office Criminal Investigation Command
- U.S. Army Health Services Command (HSC) Battalion
- U.S. Army Reserve Center
- Troop Support Agency

S.3.3 Physical Environment

S.3.3.1 Climate

The climate of Fort Sheridan is classified as continental, ranging from warm temperatures in the summer to cold temperatures in the winter. Climatic conditions are influenced by Lake Michigan and to a lesser extent by the other Great Lakes. Cold temperatures on Lake Michigan frequently produce on-shore breezes when the land surface is warmer, reducing daytime air temperatures 10°F or more below inland temperatures. The average annual temperature for the region is 49.2°F, ranging from a high of 100°F to a low of -23°F. Rainfall averages 34.41 inches per year and is distributed throughout the year. Periodically the region has experienced tornadoes, severe thunderstorms, high winds, hail, sleet, blizzards, flooding and droughts.

S.3.3.2 Topography

Fort Sheridan's mean elevation is 650 feet above mean sea level with elevations of 680 feet above mean sea level near the main gate to 650 feet above sea level at the top of the Lake Michigan bluff. The post is drained by six ravines flowing eastward to Lake Michigan. Initially, all six of these ravines were deeply pronounced with steep hydraulic gradients. Over time, two have been used as landfills, including all of Wells ravine, and the upper portions of Bartlett ravine (See Figure 3S-1). The upland portion of the installation has slopes of less than five percent throughout, and is separated from the lakeshore by a steep bluff of 40 to 70 feet.

S.3.3.3 Geology and Mineral Resources

Fort Sheridan is located on the Highland Park Moraine, one of five comprising the Lake Border Morainic System. The long, narrow moraines are closely spaced and run parallel to the Lake Michigan shoreline. Unconsolidated deposits on Fort Sheridan are about 200 feet thick, and are

primarily glacial till with several thin zones of sand and gravel (occasionally silty) below 100 feet in some areas. Pebbles and boulders found in these deposits are generally dolomite and shale. Silurian-age dolomite underlies the unconsolidated deposits.

S.3.3.4 Soils and Shoreline Erosion Hazard

The U.S. Department of Agriculture has mapped five surface soil series at Fort Sheridan. The most significant soil series are the Morley Silt Loam, Hennepin Loam, and Beach Sand. The minor soil series, occupying only one percent, include the Markham and Beecher Silty Clay Loams. Except for the bluffs and ravines, the slope is less than five percent throughout the area. The general movement of groundwater is downward through the till, but there are horizontal components of flow toward depressions and ravines. The water table averages 10 feet, and is less in some places. Soil permeability is poor and natural water content is medium to very stiff with a high frost susceptibility and low erodibility. The specific distribution of soil types is documented in the 1970 Soil Survey for Lake County, Illinois.

The shoreline along Lake Michigan has been subject to severe erosion caused by drainage of groundwater and wind and wave action from the lake. The problem has been accelerated by a significant rise in the lake level during the last 15 years. Groins and revetments have been installed as an erosion control measure, and rip-rap has been placed along areas of the beach and the bottom of the bluff. In at least one area, the bluff itself has been terraced (ANL, 1989). Additional erosion abatement efforts to stabilize the Lake Bluff, particularly near the southern end of the installation have recently been completed.

S.3.3.5 Air Resources

The Pollutants Standards Index (PSI), is the national standard method for reporting air pollution levels to the general public. The PSI is based on the short-term Federal National Ambient Air Quality Standards (NAAQS), the Federal Episode Criteria, and the Federal Significant Harm levels for the "criteria pollutants." Various PSI intervals have been given Descriptor Categories, as follows:

<u>PSI Range</u>	<u>Descriptor Category</u>
0-50	Good
51-100	Moderate
101-199	Unhealthful
200-299	Very Unhealthful
300 and above	Hazardous

The Illinois EPA issues the PSI for 11 areas, or sectors, in Illinois. These correspond to metropolitan areas with populations greater than 200,000. There are five sectors in the Chicago metropolitan area which include Lake County, North Side, Loop, South Side, and West and Southwest Suburbs. Fort Sheridan and the surrounding area is located within the Lake County sector. Air Quality in the Lake County sector in 1988 was in the Good category approximately 80 percent of the time with the remainder in the Moderate or Unhealthful categories. Unhealthful

air quality is uncommon in Illinois, and Very Unhealthful air quality is rare. There has never been an occurrence of Hazardous air quality in Illinois.

There are three primary sources of air pollutant emissions at Fort Sheridan. These sources include the central heating plant, the oil-fired furnaces in the troop cantonment area and elsewhere, and motorized vehicles. The heating plant has been modified to conform to EPA standards and those facilities with oil-fired heating systems currently in operation are within acceptable standards (U.S. Army Corps of Engineers, 1984a).

S.3.4 Water Resources

S.3.4.1 Groundwater

In most of Lake County, wells are the main sources of water. However, Fort Sheridan and the surrounding communities draw water from Lake Michigan because glacial deposits underlying the area are poor sources of potable water. The water table is generally three to five yards below the surface. The water table slopes to the east, except in the vicinity of the Fort Sheridan ravines, where the direction is assumed to be toward the ravines.

Historical records coupled with some subsurface excavations indicate that coal ash and other debris have been buried in the western end of some ravines. This fill does not appear to be toxic, and available data indicate that contaminants are not migrating beyond the installation boundaries. The potential for migration of contaminants to the aquifer is unlikely due to a low permeability rate and also to the ion exchange capacities of the soil which tend to remove contaminants from leachates (U.S. Army Corps of Engineers, 1982a).

A hydrologic and subsurface exploration (performed by Soil Test Services of Northbrook, Illinois in 1978) indicated that groundwater quality at Fort Sheridan meets the requirements for maximum allowable concentrations of pollutants set forth by the State of Illinois Pollution Control Board. Table 3 S-1 summarizes the results of the sampling.

Table 3 S-1

GROUNDWATER SAMPLE ANALYSIS

Constituent	Monitoring Wells (1)		
	B-1	B-2	B-3
pH (pH units)	7.90	7.88	8.04
Chloride	7.80	8.25	13.0
Iron (Total)	4.75	1.10	78.5
Dissolved Solids	390.0	286.0	700.0
Sulfate	93.2	40.8	295.0
C.O.D.	71.4	63.5	194.4

(1) Samples taken on August 31, 1978.

* All data have units of mg/l unless otherwise noted.

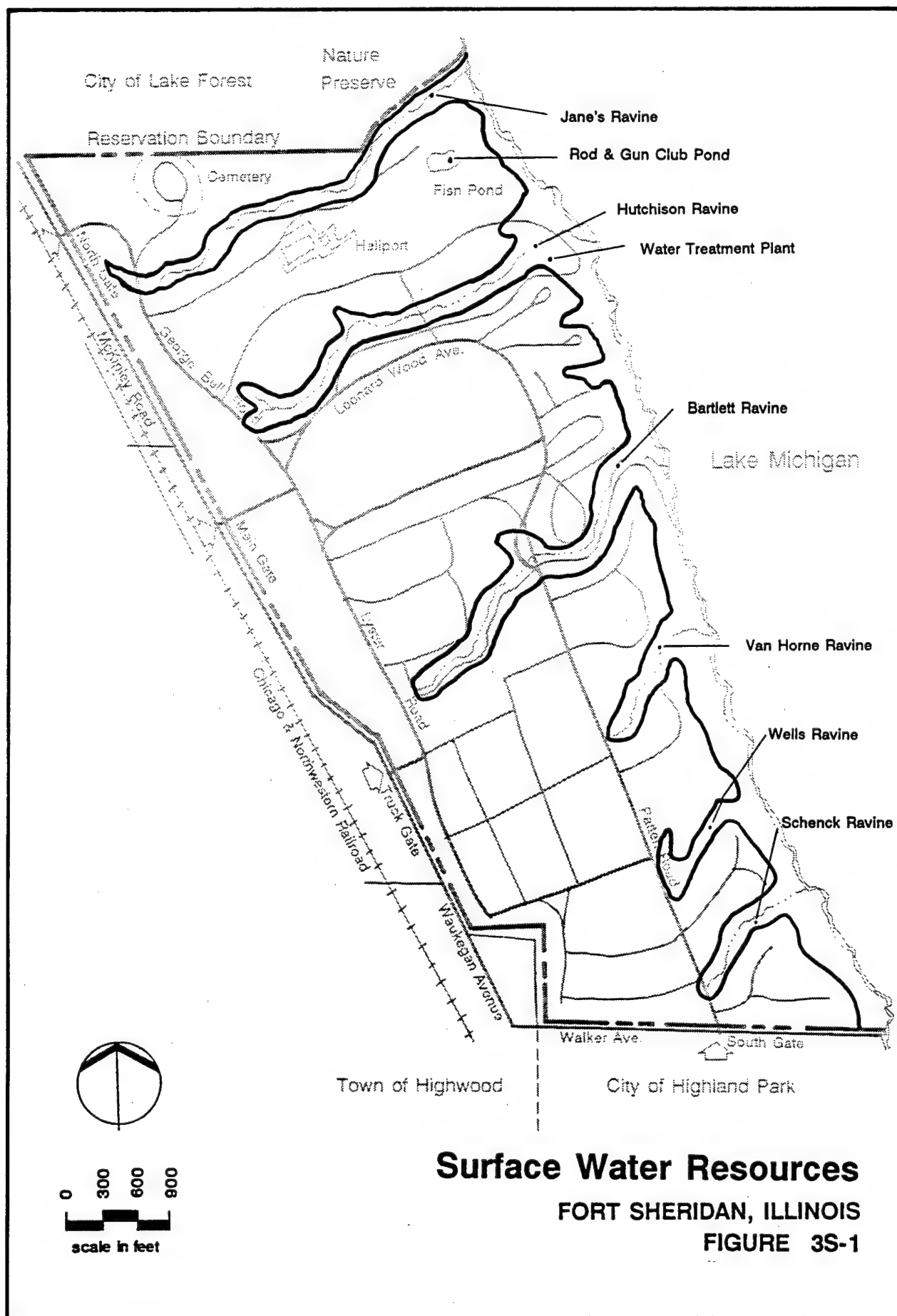
Source: U.S. Army Corps of Engineers, 1982a.

S.3.4.2 Surface Water

Fort Sheridan and the surrounding communities all lie within the 34,100-acre Lake Michigan Basin-North drainage area. This drainage basin is a narrow strip along the Lake Michigan coastline in Lake County which includes 31 miles of shoreline from the Cook County border northward to the Wisconsin state line. The basin width ranges from approximately one mile at the southern boundary to three miles at its northern boundary. Within the Fort Sheridan boundaries, there are six ravines that drain surface water from the area into Lake Michigan. The general configuration of these ravines is illustrated on Figure 3S-1.

The only existing impoundment at Fort Sheridan is the Rod and Gun Club Pond located near the northeast corner of the installation (See Figure 3S-1). This impoundment has a surface area of approximately one acre and is 15 feet deep at maximum pool elevation. Constructed in 1967 and stocked with largemouth bass, bluegill and channel catfish, the pond is fed by a groundwater well and has no watershed. Fort Sheridan also has one swimming beach which is not open to the public, but is used by Fort Sheridan personnel and their families.

Lake Michigan is immediately adjacent to Fort Sheridan. Within the lake, there are two "zones", a nearshore zone, and an offshore zone that begins about five or ten miles from shore. The two zones are the result of differences in water temperature and density. There is little mixing of nearshore and offshore waters, so that pollutants discharged into nearshore waters tend to remain close to shore. Winds and bottom topography also restrict the offshore movement of surface waters and inhibit the spread of nearshore pollution. Annual and seasonal variations in



Surface Water Resources

FORT SHERIDAN, ILLINOIS

FIGURE 3S-1

water levels depend primarily on changes in precipitation and evaporation. Seasonal water levels generally are highest in mid-summer and lowest in mid to late winter.

S.3.4.3 Floodplains/Wetlands

Floodplains. The Flood Insurance Rate Map for the Cities of Lake Forest and Highland Park, Illinois, Community Panel Numbers 170374 0006 C and 170367 0002 B, respectively, issued by the Federal Emergency Management Agency, effective date February 18, 1981 and November 5, 1980, respectively, indicate that the shoreline of Fort Sheridan is zoned within a regulatory floodplain.

This is based on a 100 year flood elevation of 584 feet above mean sea level. No Flood Insurance Rate Map for the Town of Highwood (which includes the central portion of Fort Sheridan) was printed, indicating that no floodplains exist. However, the existence of a shoreline zone on either side of the area would indicate that a similar zone is in fact present along the entire Lake Michigan frontage. A report entitled Flooding in the Highland Park Quadrangle, Illinois, was prepared for the Northeastern Illinois Planning Commission by the U.S. Geological Survey in 1963. This report indicates that there are no other floodplain areas on or adjacent to Fort Sheridan.

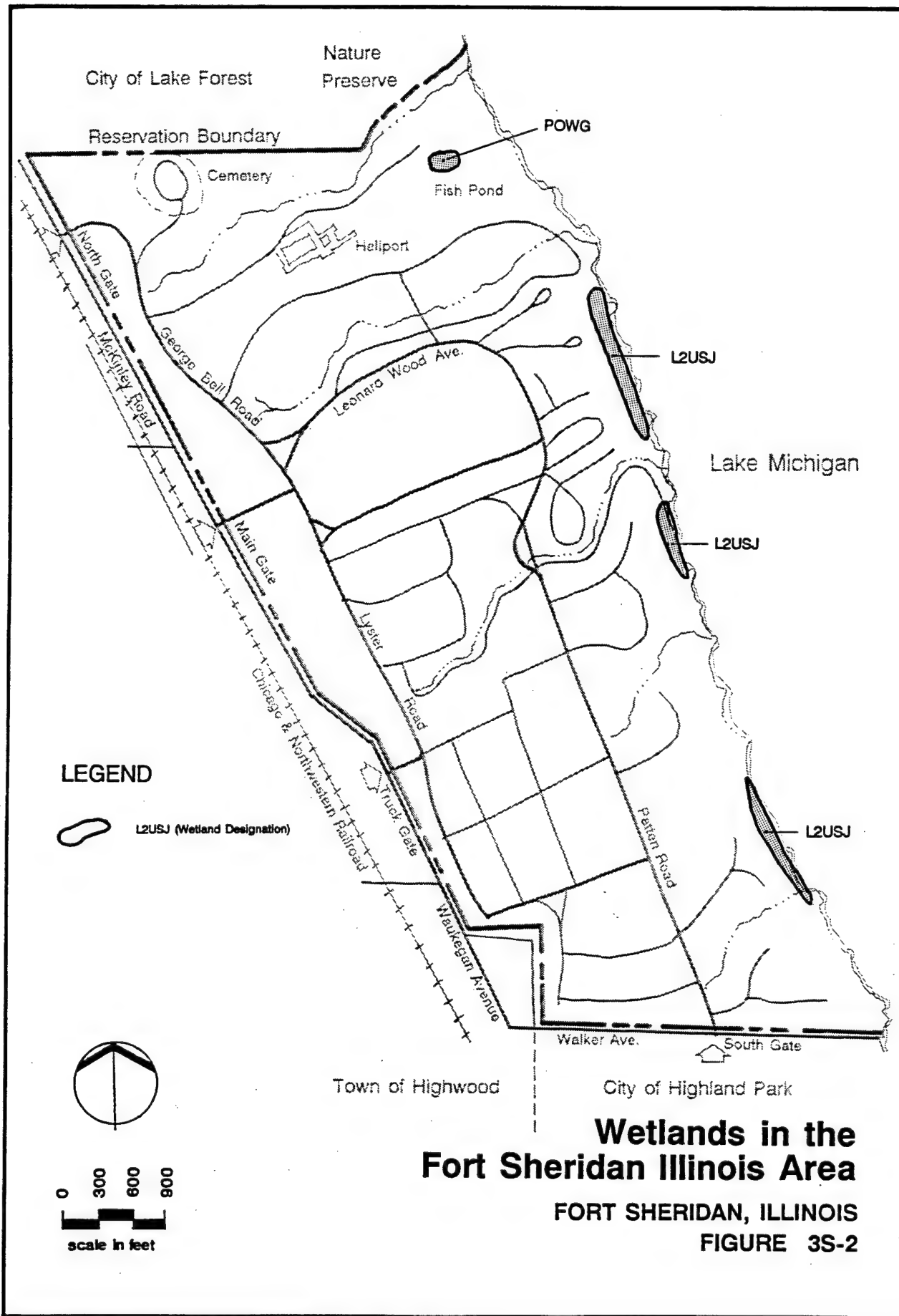
Wetlands. Wetland maps prepared by the U.S. Department of the Interior (1981), Fish and Wildlife Service, in conjunction with the Illinois Department of Conservation, show a total of four wetland areas on Fort Sheridan (See Figure 3S-2). No attempt was made to delineate wetlands using the Federal Manual for Identifying and Delineating Jurisdictional Wetlands.

Based on the Fish and Wildlife Service maps, three wetlands are located along the east side of the installation covering approximately 3,900 linear feet of lake shore with 9.9 acres or 430,000 square feet in area. The only other wetland, commonly known as the fish pond, located between Jane's and Hutchinson Ravines, is approximately one acre. The two wetland categories on the installation are classified as Lacustrine-Littoral-Unconsolidated Shore (L2USJ) and Palustrine-Open Water (POWGx) (scientific classification: system-subsystem-class).

S.3.5 Biological Resources

S.3.5.1 Wildlife Resources

Fort Sheridan consists of approximately 700 acres, of which about 100 acres are undeveloped. The undeveloped acreage is generally made up of ravines, bluffs and shoreline. The diversity and quantity of wildlife species in the area has been reduced due to the extensive residential, commercial and industrial development of the region. Wildlife known to occur on the undeveloped portions of Fort Sheridan include the following (U.S. Army Corps of Engineers, 1985a):



Source: U.S. Department of the Interior, 1981

Small Mammals:

raccoon (Procyon lotor)
eastern cottontail rabbit (Sylvilagus floridanus)
gray squirrel (Sciurus carolinensis)
eastern chipmunk (Tamias striatus)
striped skunk (Mephitis mephitis)
woodchuck (Marmota monax)

Amphibians and Reptiles: (found in small quantities and low population densities):

snapping turtle (Chelydra serpentina)
stinkpot (Sternotherus odoratus)
eastern plains garter snake (Thamnophis radix)
fox snake (Elaphe vulpina)
eastern hognose snake (Heterodon platyrhinos)
eastern tiger salamander (Ambystoma tigrinum tigrinum)
Fowler's toad (Bufo woodhousei fowleri)
western chorus frog (Pseudacris triseriata triseriata)
green frog (Rana clamitans melanota)

Birds:

Bird habitats at Fort Sheridan are generally located in the undeveloped wooded ravines and the sparsely wooded upland areas of the northern portion of the post. The most commonly found bird species in these areas include the following (U.S. Army Corps of Engineers, 1985a):

downy woodpecker (Picoides pubescens)
yellow shafted flicker (Colaptes auratus)
tufted titmouse (Parus bicolor)
various ducks (Family Anatidae)
several hawks
herring gull (Larus argentatus)
ring-billed gull (Larus delawarensis)
mourning dove (Zenaida macroura)
cardinal (Cardinalis cardinalis)
purple finch (Carpodacus purpureus)
slate-colored juncos (Junco hyemalis)
numerous sparrows (Family Fringillidae)
bluejay (Cyanocitta cristata)

3.3.5.2 Plant Resources

Fort Sheridan has approximately 600 developed acres that primarily consist of artificially maintained landscaped habitat of manicured lawns, horticultural plantings, buildings and

pavement. Six ravines drain the area. Wells Ravine and the upper portion of Barlett Ravine have been filled, and a road has been constructed in Bartlett Ravine leading to the south beach area.

Typical native trees found in the ravines are basswood (Tilia americana), sugar maple (Acer saccharinum), ash (Fraxinus spp.), and elm (Ulmus americana). Witch hazel (Hamamelis virginiana) is the most characteristic shrub. Herbaceous cover is rich and varied, including such genera as Hepatica, Thalictrum (rue), Trillium, Dicentra, and Sanguinaria (bloodroot).

The Fort Sheridan grounds also support a large number of old and stately trees that contribute to the aesthetic value of the area, particularly within the existing Historic District. A 1987 Tree Inventory prepared for the U.S. Army by Benatec Associates documented over 5,000 trees including 2,000+ oak trees of varying species. Almost 900 of these trees had a diameter of 20 inches or greater.

S.3.5.3 Threatened and Endangered Species

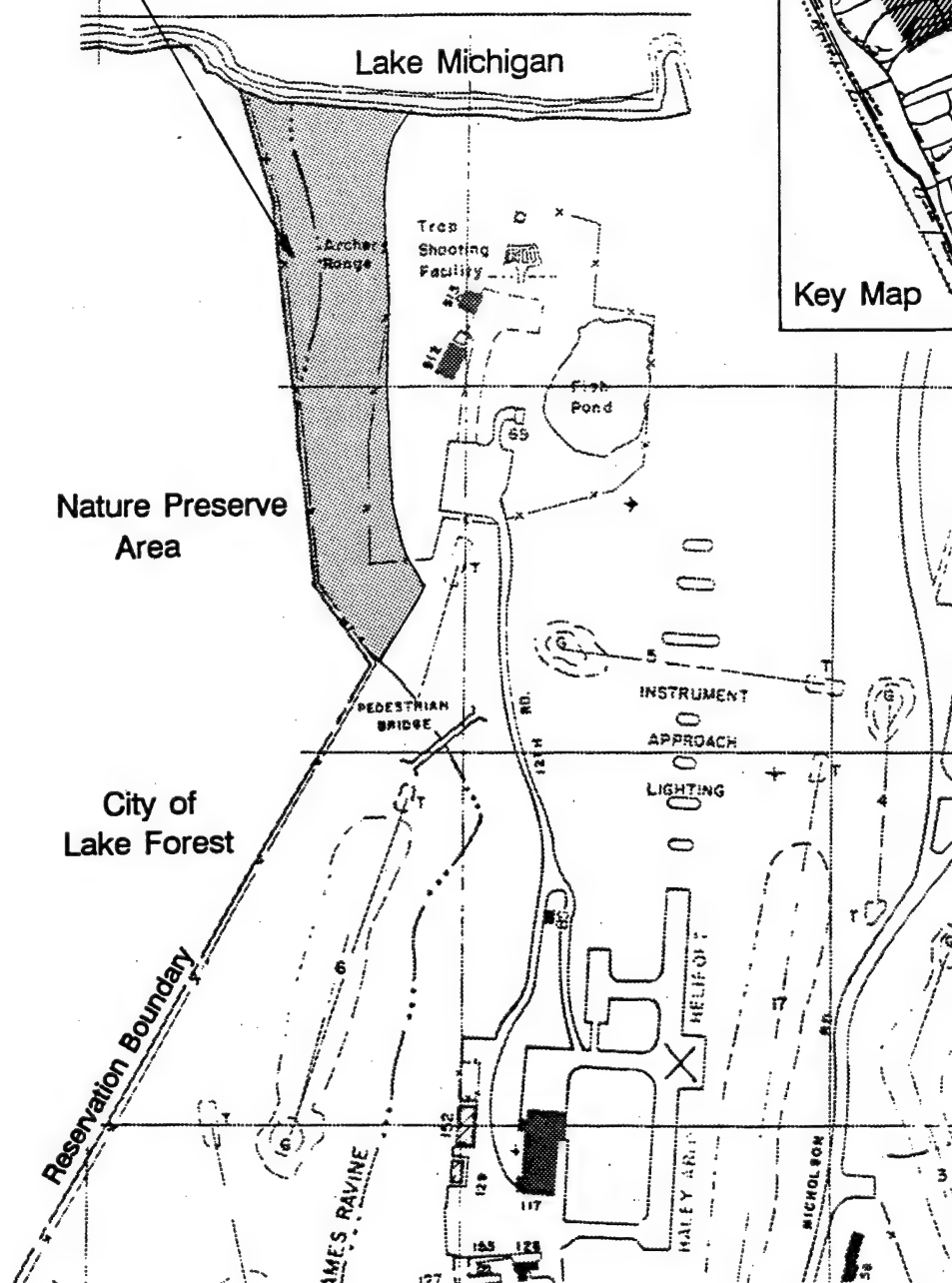
Previous studies have been conducted to examine Fort Sheridan to identify threatened, endangered and sensitive species (Illinois Department of Conservation, 1978). As a result of these efforts there are two sites on the installation that have been included in the Illinois Natural Areas Inventory (INAI). These sites include Jane's Ravine and a portion of the Lake Michigan bluff area. While these two natural areas have been protected under Fort Sheridan federal ownership, it has not been possible to dedicate these areas as a State Nature Preserve. However, this designation could be applied under any other (nonfederal) owner.

It has been documented that the natural floristic quality of the ravines at Fort Sheridan has been disturbed to different degrees. However, the northernmost ravine (Jane's Ravine) originating at the south end of the City of Lake Forest, has been found to be of statewide significance (See Figure 3S-3). Jane's Ravine forms the southernmost arm of a much larger system of ravines owned by the City of Lake Forest known as McCormick Ravine. Jane's Ravine, as shown in Table 3 S-2, is one of the finest examples of this kind of natural area in Illinois and contains high quality examples of mesic and dry-mesic upland forest (INAI Lake #119). (Illinois Department of Conservation, 1988.)

The second site of special significance is the lake bluff located east of the officer family housing along Boles Loop (See Figure 3S-4). This six acre bluff area is of statewide significance because it is the largest and one of the best remaining examples of the natural open prairie-like vegetation that once occurred along lake bluffs in Illinois. An Illinois Department of Conservation Survey (1978) identified several endangered or threatened plant species within these two areas. A listing of these plants is provided in Table 3 S-2.

In addition, a survey by the Illinois Department of Conservation in June, 1990 documented the presence of a new population of buffaloberry (Shepherdia canadensis) on the lake bluff, just south of the water treatment plant near the aqueduct; and a new population of ground juniper (Juniperus communis) on the lake bluff south of the Van Horne Ravine. Both species were already known to occur at Fort Sheridan (see Table 3S-2), but the sites described above represent new locations for these plant species.

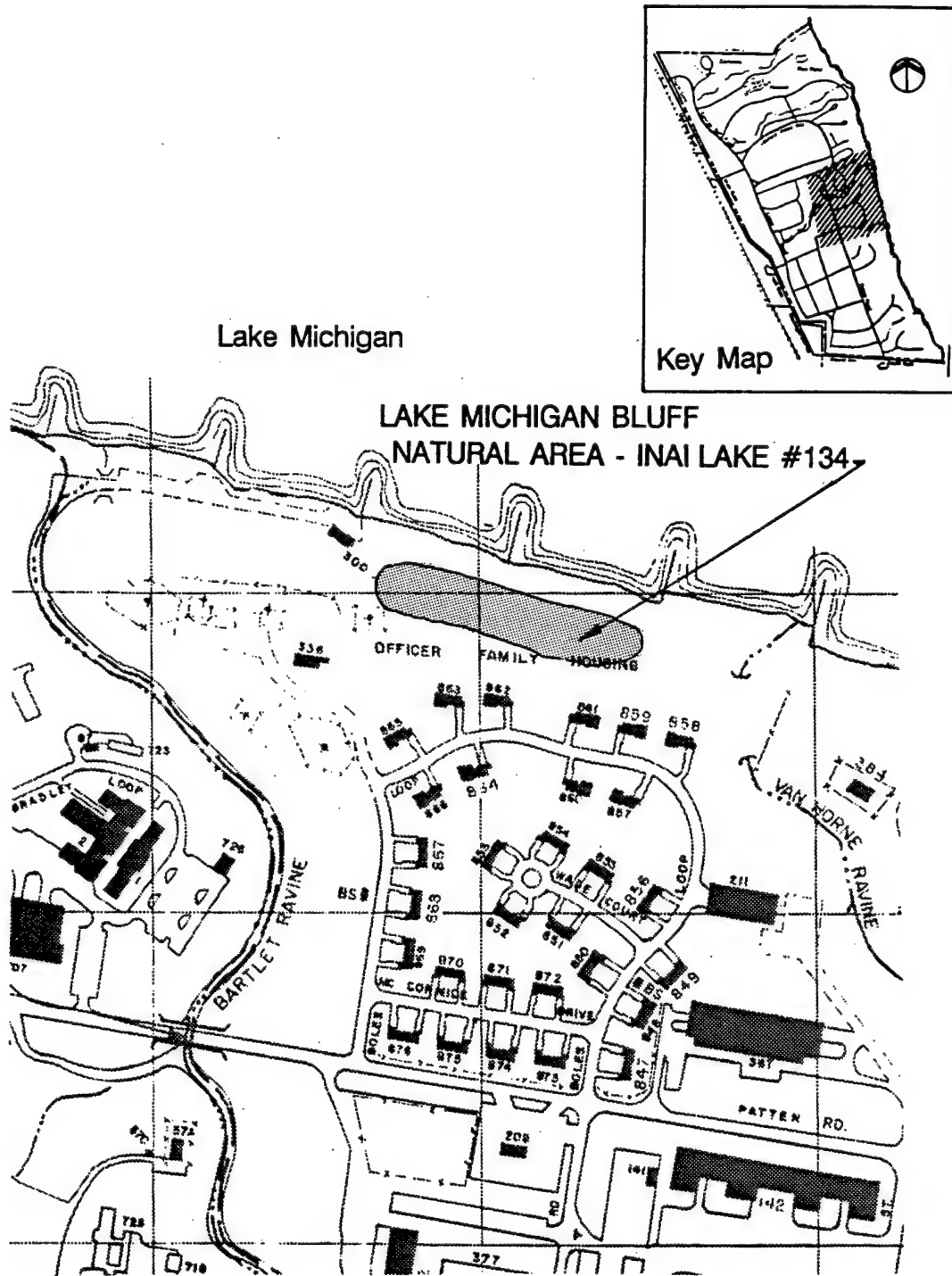
JANE'S RAVINE NATURAL AREA
INAI LAKE #119



No Scale

Jane's Ravine Natural Area
FIGURE 3S-3

Source: Illinois Department of Conservation Correspondence, September 15, 1989.



No Scale

Lake Michigan Bluff Natural Area
FIGURE 3S-4

TABLE 3 S-2

STATE OF ILLINOIS THREATENED AND ENDANGERED SPECIES
KNOWN TO OCCUR ON OR ADJACENT TO FORT SHERIDAN

<u>Common Name</u>	<u>Scientific Name</u>	<u>Last Status</u>	<u>Seen</u>
Ground Juniper	<u>Juniperus communis</u> ([*]) L. var. depressa pursh.	Threatened	1978
Pale Vetchling	<u>Lathyrus ochroleucus</u> (R)	Threatened	1977
Rice Grass **	<u>Oryzopsis racemosa</u>	Threatened	1976
Small Solomon's Seal	<u>Polygonatum pubescens</u> (R)	Endangered	1977
Arbor Vitae	<u>Thuja occidentalis</u> ([*])	Threatened	1978
Star Flower	<u>Trientalis borealis</u> (R)	Threatened	1977
Dog Violet	<u>Viola conspersa</u> (R)	Threatened	1978
Ground Juniper	<u>Juniperus communis</u> ([*]) L. var. depressa Pursh.	Threatened	1978
Canadian Buffaloberry	<u>Sherpherdia canadensis</u> (B)	Endangered	1978
Weak Bluegrass**	<u>Poa languida</u> (R)	Endangered	1988
Grove Bluegrass**	<u>Poa alsodes</u>	Endangered	1988
Purple Flowering Raspberry**	<u>Rubus odoratus</u>	Endangered	1976

(B)=Plants found on bluff (R) = Plants found in Jane's Ravine (^{*}) = Found at both sites.

Source: Illinois Department of Conservation, 1978 and 1988.

** These four species were found in McCormick Ravine - U.S. Army Corps of Engineers, 1989a.

Eight bird surveys were made at Fort Sheridan between May 21 and June 14, 1977. Although there were several state listed species present as migrants, including Forster's tern (Sterna forsteri, endangered), common tern (Sterna hirundo, endangered), and veery, (Catharus fuscescens, threatened), there was no evidence to indicate that they were nesting at Fort Sheridan.

Two federally listed endangered species that have been observed at Fort Sheridan include the piping plover, Charadrius melodus, and the peregrine falcon, Falco peregrinus. No critical habitat for either of these species is present on the installation. Each of these species have been observed as migrants and are not known to nest in the vicinity. A total of 66 peregrine falcons were observed migrating along the lakeshore during the fall of 1977.

The National Register of Endangered and Threatened Species (50 CFR 17.11 and 17.12; January 1, 1989) was reviewed for the potential occurrence of any additional listed species or their critical habitats. The only other listed species potentially occurring at Fort Sheridan is the bald eagle (endangered). However, sightings of this species would be restricted to incidental sightings during migration as there is no suitable habitat in the vicinity.

S.3.6 Cultural Resources

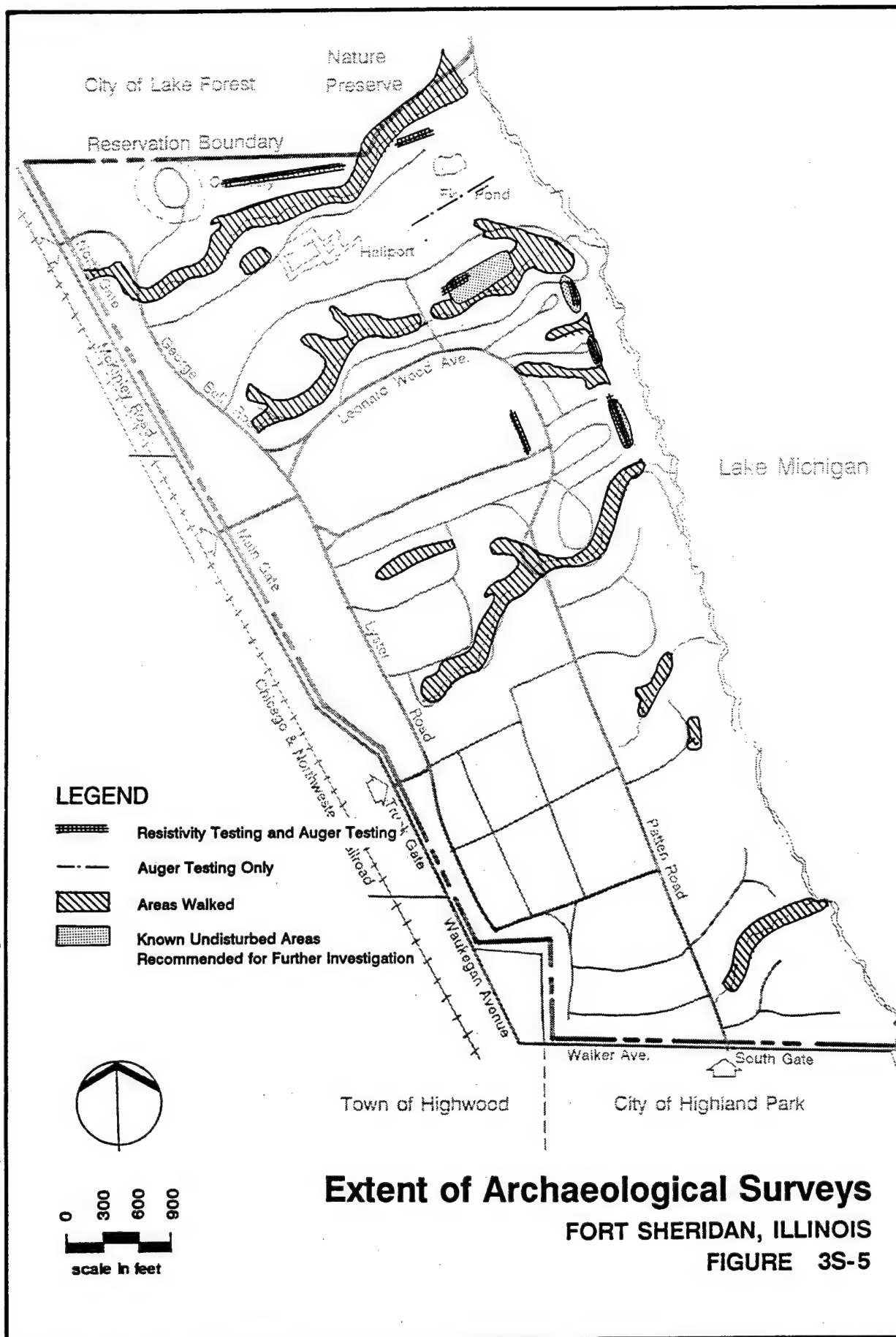
S.3.6.1 Native American Values

Three major historic tribes were reported in the Chicago - Fort Sheridan area: the Illinois, Potawatomi, and Miami. About 1671 the Illinois were driven across the Mississippi River by the Iroquois. The Miami were in turn displaced by the Potawatomi about 1700. By 1839 or shortly thereafter, most of the Potawatomi had been removed from Illinois. The last of the Illini (Kaskaskia) left their reservation in southern Illinois in 1832. The Miami were the last of the three tribes to give up lands east of the Mississippi River. In 1865, 353 Miami were still residing in Indiana. The remnants of the Illini are living in northeastern Oklahoma and known as the Peoria Tribe. The Miami retained their tribal identity but hold no tribal lands, and the Potawatomi have reservation lands in Kansas and Nebraska (Temple, 1966). There is no evidence that the living descendants of the above mentioned tribes or members of the Sioux Tribe have ascribed specific cultural values to Fort Sheridan.

S.3.6.2 Archaeological Resources

In May of 1979, approximately 60 acres of the undeveloped portions of Fort Sheridan were surveyed for archaeological resources (Essenpreis 1980). Methods included a literature and records review, resistivity metering, soil augering, phosphate analysis, test excavations, and the examination of exposed soils in 6 east-west oriented ravines (Figure 3S-5).

A prehistoric bifacially flaked blade fragment and a few historic artifacts were recovered as isolated finds, but there were no intact prehistoric or historic sites recorded. The report recommends that no further archaeological work is feasible at the installation with the exception of approximately seven acres containing undisturbed deposits (Figure 3S-5).



Source: . Essenpreis, Patricia S., 1980.

S.3.6.3 Architectural Resources

Historic architectural resources at Fort Sheridan were documented in a National Register Survey conducted in 1979 by the Historic American Buildings Survey. As a result of that study, the Fort Sheridan Historic District was included on the National Register of Historic Places on September 29, 1980, and was recognized as a National Historic Landmark on October 29, 1984. With the exception of the buildings within the designated Historic District (as defined below) there are no other structures within Fort Sheridan that are listed on the National Register of Historic Places.

The 230 acre Fort Sheridan Historic District is shown on Figure 3S-6. Ninety four buildings within the District are considered contributing structures, and 64 buildings are considered intrusions. The buildings date from 1890 to 1910 when the first permanent structures were built. The 167-foot water tower (Building 49) is considered to be the focal point of the post, and was listed individually on the National Register of Historic Places on December 4, 1974. Other contributing structures within the District are listed in Table 3 S-3 and are shown on Figure 3S-6.

The Historic District consists of 50 residences (including a number of duplex structures), 39 of which are situated in a contiguous subdivision. The 75 residential units provided by the 50 structures referenced above, contain 134,584 square feet. The District also includes 44 nonresidential buildings containing 678,131 square feet, for a total of 812,715 square feet in 94 buildings.

Eighteen nonresidential buildings within the District are considered to be major improvements. These are the Community Club and Guest House (Buildings 31 and 32) located on the north side of the parade grounds, and the 16 buildings forming the core of the District on the southern side of the parade grounds. These are Buildings 47 through 50, 60, 79, 81 through 84, and 103 through 108. The fire station, Building 79, is included more due to its location in the midst of this core, rather than its size. The remaining 26 buildings are all considered lesser improvements, although they continue to have historic significance. All of the original buildings within the Historic District continue to be used, with adaptations, and are in fair to good condition.

The Fort Sheridan Historic District is cohesive in design, material workmanship and location. Sixty-six of its buildings were designed by the well known Chicago architectural firm of Holabird and Roche. Twenty-six buildings within the district were constructed from standardized plans from the Office of the Quartermaster General of the U.S. Army, and are common to many military posts of the period. All of the buildings were constructed within a twenty year period, from 1889 to 1908.

S.3.7 Human Environment

S.3.7.1 Visual and Aesthetic Value

The lakeside location, clear-weather vistas, ravines with precipitous slopes and natural vegetation, and the architectural strength of the permanent buildings combine to provide an aesthetically pleasing appearance at Fort Sheridan. Although all of the six existing ravines have been

TABLE 3 S-3

LIST OF CONTRIBUTING STRUCTURES IN
THE FORT SHERIDAN NATIONAL HISTORIC DISTRICT

Building #	Current Use	Building #	Current Use
1	Library	57A	Ordnance Warehouse
2	Education Center	59	NCO Quarters
3-13	Officers' Quarters	60	Gymnasium
15-28	Officers' Quarters	61	Veterinarian
29	Water Treatment Plant	62	Administration
30	Officers' Quarters	63	Computer
31	Community Club	65	Computer
32	Guest House	66	Administration
33	Museum	72	NCO Quarters
34	Child Care Center	73-76	Officers' Quarters
35	Civilian Personnel Administration	77	Vehicle Repair
		78	NCO Quarters
36	Warehouse	79	Fire Station
37	NCO Quarters	80	Warehouse
38	Post Office	81	Administration
39	Warehouse	82-84	Administration
42	Warehouse	85	Clothing Sales Store
43	DOL Maintenance Shop	86	Warehouse
44-46	NCO Quarters	87-89	Storage
47-48	Administration	90-91	NCO Quarters
49	Water Tower	92-97	Officers' Quarters
50	Administration	98	Warehouse
52	NCO Quarters	100	Storage
53-54	Officers' Quarters	102	NCO Quarters
56	Officers' Quarters	103-108	Administration

Source: ANL, 1989

disturbed to some degree, the ravines provide a topographic variety and scenic relief to the otherwise planar landscape.

The most notable feature of the post is the distinctive buff-cream brick used in the construction of the original buildings and the water tower. The tower, which provides the central focal point, overlooks a 54 acre parade ground, and is flanked by 483 foot long, two and one-half story barracks. Both the Historic District and the northern portion of Fort Sheridan are landscaped with heavy forest cover in some areas. Other areas have been used for a golf course (currently in existence), and an airstrip (removed except for a helicopter pad). The southern portion of the installation is dominated by a large number of temporary barracks. The visual quality of this area is relatively poor in comparison to the rest of the installation in terms of architectural interest, limited topographic relief and lack of landscape improvements.

S.3.7.2 Noise and Odor

Noise. Traffic, aircraft and firing ranges are the primary noise generators at Fort Sheridan. Noise generated from automobiles is at the highest level during morning and evening rush hours. Two interior streets, Patten Road and Lyster Road, carry a majority of the traffic. The only aircraft facility at Fort Sheridan is Hawley Army Airfield (Helipad), which is used for daytime operation of rotary-wing aircraft. Additional military airfields are located 18 miles southwest of Fort Sheridan at Glenview Naval Air Station. At this time, the only firing range at Fort Sheridan, is the recreational trap-shooting facility at the extreme northeast corner of the installation.

Odor. Wells Ravine Landfill (Landfill No. 7), located east of Patten Road in the southern part of the installation, has been identified as a source of odor. The odor is caused by the release of landfill gases through vent pipes installed at four monitoring wells located within or close to the border of the landfill.

S.3.7.3 Hazardous Material Sites

Permit Status. Previously conducted hazardous waste surveys of Fort Sheridan have determined that materials covered under the Resource Conservation and Recovery Act (RCRA) regulations (40 CFR 256, May 19, 1980) are not generated or stored in sufficient quantities to require permits (ANL, 1989).

National Priorities List Status. Fort Sheridan is not on nor nominated for the National Priorities List prepared by the U.S. Environmental Protection Agency.

Industrial Operations. There are no major industrial operations at Fort Sheridan, however, numerous support operations and facilities use toxic or hazardous materials and generate hazardous waste products requiring recycling or disposal. These activities include vehicle and heavy equipment maintenance and repair shops, small equipment repair shops, painting and carpentry shops, an electrical communications repair shop, a photographic laboratory, and aircraft operations.

Each facility stores a supply of the chemicals or fluids required by its operation, as well as an accumulation and storage area for the product generated. Operating guidelines require that toxic or hazardous waste materials be properly recycled through the Great Lakes Naval Training

Center Defense Reutilization and Marketing Office (DRMO) or disposed of through a licensed private contractor, as appropriate (ANL, 1989). Past disposal practices for many of these products are known to have included burning and burial in one or more of the on-site landfills. Documentation of this historical practice is not available, although the statements of a number of long-term employees at Fort Sheridan attest to this method of disposal (ANL, 1989).

A detailed description including materials used and stored, quantities, type of waste generated, location, building or facility number, and other pertinent information for each support activity generating hazardous waste, is contained in the USATHAMA Enhanced Preliminary Assessment Report, dated October, 1989 (ANL, 1989). Currently, USATHAMA is conducting a Remedial Investigation/Feasibility Study (RI/FS) to determine the extent of environmental contamination of Fort Sheridan and to recommend any required corrective remedial actions. The RI/FS is scheduled for completion in January, 1995.

Nike Missile Site. From 1953 until the early 1970s, the Nike-Hercules missile systems at Fort Sheridan and throughout the Midwest were maintained, repaired, and calibrated in Bldg. 128. Wastes associated with Nike missiles include benzene, carbon tetrachloride, chromium, lead, petroleum, hydrocarbons, perchloroethylene, toluene, 1,1,1 and 1,1,2 trichloromethane, and trichloroethylene. It is not known whether such materials were disposed of on-site at Fort Sheridan (ANL, 1989).

Three in-ground missile silos located near the Bldg. 900 Reserve Center Complex were converted for use as fallout shelters, but this activity was abandoned due to repeated flooding of the silos. The water is no longer pumped from the silos.

Radioactive Materials. Bldg. 128 was used for storage of instruments containing radioactive materials during the Nike missile operations period. Bldg. 142 was also used for temporary storage of the instruments. The instruments contained small quantities of tritium, Krypton-85, and trace levels of ionizing sources. Fort Sheridan was exempted for shipping purposes under the Nuclear Regulatory Commission regulations due to the small quantities involved (ANL, 1989).

Radioactive materials are currently used at Fort Sheridan as calibration sources within radiological survey instrumentation, and are stored in Bldg. 379. The current inventory at Bldg. 379 shows small quantities of radioisotopes 239 pu, 238 pu, KR 385, and Strontium 90.

Excessed radiological instruments are now transferred to the Battle Creek, Michigan Defense Logistics Agency, to the Great Lakes DRMO, or to private disposal firms in Utah or Colorado.

Pesticides. Groundskeeping operations use insecticides, herbicides, and rodenticides. These are stored in Bldg. 377, with the exception of golf course fertilizers and pesticides, which are stored in Bldg. 172. A complete inventory of Bldg. 172 chemicals can be found in the 1989 USATHAMA report. Only EPA registered pesticides are used, and the pest controllers are certified by the Department of Defense.

Storage and use of chemicals stored in Bldgs. 172 and 377 are satisfactory, although minor violations of safety regulations have been noted in previous environmental assessments. Current conditions have been upgraded.

Radon. A radon testing program for Fort Sheridan is currently underway. This program will consist of testing of schools, education centers, housing units, clinics, day care centers, and barracks.

Mercury. Sewage from Fort Sheridan is treated at the North Shore Sanitary District sewage treatment plant. On two recent occasions, high levels of mercury were found in sewage treated by this district. The Directorate of Engineering and Housing determined that the presence of mercury was most likely caused by silk screening at the Training and Audiovisual Support Center (TASC). As a result of this investigation, silk screening has been discontinued at TASC and no further incidents have been reported.

PCB Transformers. All existing transformers have not been tested for PCB compounds in their cooling oils, although all are inspected for leaks periodically. Those in-service units that have been analyzed for PCB content are labeled appropriately. A program is underway by which Fort Sheridan tests all units as service is required.

Out-of-service transformers are stored in a holding area near Bldg. 122, prior to disposal through the Great Lakes DRMO. Cooling oil in these units is tested for PCBs, and some have tested positively. Following a 1981 assessment by USATHAMA, the transformer storage area was upgraded to meet federal regulations (ANL, 1989).

Fort Sheridan personnel with many years service stated that, because of their cost, it has been a long-standing policy to sell or repair transformers when removed from service. It is unlikely, therefore, that any unit would have been disposed of in one of the on-site landfills (ANL, 1989).

Asbestos. An asbestos survey (U.S. Army Corps of Engineers, 1986a) was conducted on 34 buildings at Fort Sheridan during August 1986. Thirty-three of the buildings have been demolished. The remaining building (575) is currently being renovated.

Structures where no asbestos was found included Bldg. Nos. 539, 541, 547, 548, 552, 602, 609, 614, and 659. Asbestos material was discovered in the remaining twenty-five of the thirty-four buildings surveyed. The study recommended removal of all asbestos containing material prior to building demolition as the only permanent solution for preventing current or potential hazards related to exposure to asbestos fibers. Temporary solutions, including encapsulation and enclosure, were suggested as a short-term alternative to complete removal for asbestos material in Bldg. 575; however, it is likely that these materials will have to be removed in the future due to damage, deterioration, or demolition.

Since this survey was conducted, an additional 20 buildings have been surveyed. Six of these structures (Bldgs. 1, 40, 48, 137, 139, and 180) will undergo an asbestos abatement program scheduled for completion by June 1990.

In addition to the presence of asbestos within buildings that are currently in use, asbestos siding and roofing material and asbestos insulation were present in buildings that have been demolished over the years. Rubble from these buildings was disposed of in several landfills on-site. Although no reasonable estimate of the total amount disposed of in this way is available, it could be large, based on the number of barracks and other old buildings that were demolished in the 1960s and 1970s (ANL, 1989).

Underground Storage Tanks (USTs). Locations, sizes, and other pertinent information about existing tanks is included in the current Fort Sheridan Spill Prevention Control and Countermeasure Plan (SPCC), dated 29 July, 1988 and in the Installation Spill Contingency Plan (ISCP).

The Illinois EPA requires that all tanks with capacities greater than 100 gallons installed before 1965, be tested for leakage and that corrective remedial measures be taken when necessary. An inventory of existing tanks (See ANL, 1989) indicates that a total of 46 tanks are subject to EPA regulations. Twelve of the tanks were tested during 1988 and 1989 and three of those are scheduled for retesting to confirm unusual results. Testing of the remainder of the tanks is currently in process.

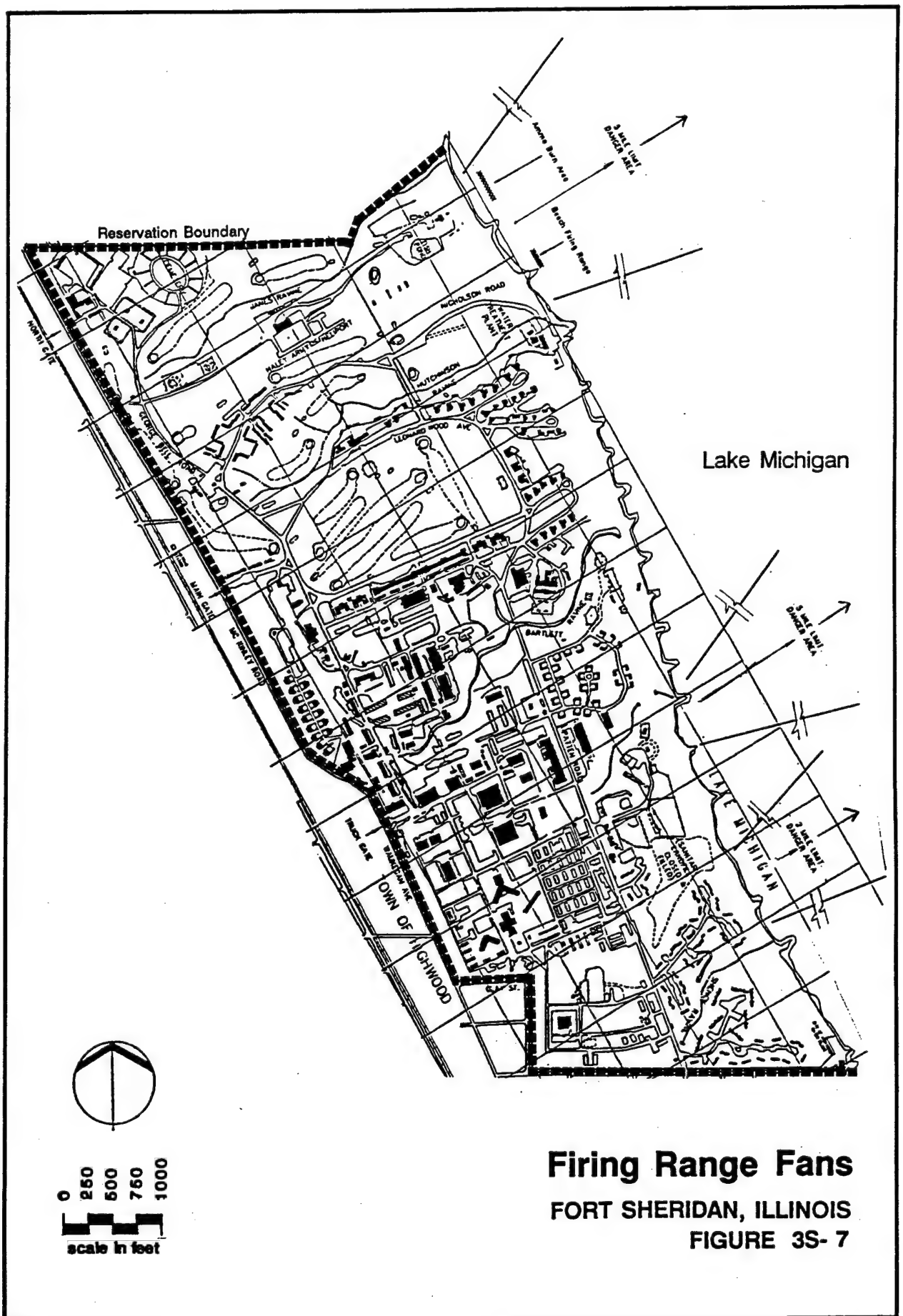
Of particular concern are two 10,000-gallon USTs located adjacent to Bldg. 143. They were installed as part of the Bldg. 124 POL Station, which has since been demolished, and reportedly contain used or scrap oil. One or both of the tanks may be leaking, according to site personnel. The area has been labeled as a Hazardous Area. Plans are underway to remove the two tanks (ANL, 1989).

Ammunition Use, Storage, and Disposal. Fort Sheridan no longer maintains military firing ranges for training. A skeet range in the northeastern portion of the installation is available for recreational use. Artillery and small-arms ranges were a significant part of training in the past, however, especially before and during WWII. A small-arms range located at the present site of the airstrip in the northern portion of the installation was used for troop training from 1890 until the early 1950s. Artillery training was conducted from 1920 to 1943 at three firing points located near and extending into Lake Michigan. The fan areas for these points are shown in Figure 3 S-7.

The current ammunition storage area (Buildings 389 and 390) violates Army quantity and distance requirements (U.S. Army Corps of Engineers - 1984a). Army Regulation (AR 385-100) requires the decommissioning of such bunkers when their use is terminated. The storage area is fenced, locked, and regularly patrolled.

During the 1980's, various types of ammunition and explosives were found at the east end of the airfield at Fort Sheridan (Landfill No. 2 - See Figure 3S-8). Ammunition and explosives discovered include: 75mm projectile, 60 mm mortar, lead practice bombs, 250 lb. bomb, 2 WWII hand grenades, and 37 mm cartridge. The ordnance had been burned and buried but much of it was still live and susceptible to detonation from impact and heat.

It is not known what other areas, if any, were used for ammunition disposal sites. Review of the fan areas suggest that at least one area on the installation and three in the lake are possibly contaminated (See Figure 3S-7). The eight known disposal sites on the installation are discussed



Source: ANL, 1989.

in Section S.3.7.6. Based upon what has been found to date, there is a possibility that other dangerous material may exist.

Infectious Wastes. The Health Clinic (Bldg. 707) produces approximately 11 pounds per day of infectious wastes (ANL, 1989). These wastes are autoclaved and disposed of with general refuse in a sanitary landfill located off Fort Sheridan (ANL, 1989).

S.3.7.4 Traffic and Transportation

External Access Routes. The western boundary of Fort Sheridan is formed by Sheridan Road (Illinois State Route 42) which provides north-south direct access. Access from the west is poor, since no direct connection exists from any of the Fort's gates to an east-west roadway.

Traffic Volumes. Table 3 S-4 summarizes 1988 traffic volume data near Fort Sheridan.

TABLE 3 S-4
TWO-WAY AVERAGE DAILY TRAFFIC (ADT) VOLUMES
ON ROADWAYS NEAR FORT SHERIDAN, ILLINOIS

Roadway	Location	ADT
Sheridan Road	S. of Old Elm Rd.	16,600
Sheridan Road	N. of Old Elm Rd.	12,800
Half Day Road	E. of U.S. 41	17,100
Half Day Road	W. of U. S. 41	21,000
Half Day Road	E. of I-94	24,700
Half Day Road	W. of I-94	29,500
U. S. 41	S. of Half Day Rd.	53,600
U. S. 41	N. of Half Day Rd.	44,600

Source: Illinois Department of Transportation, 1988.

Other Transportation Modes. A railroad spur to the installation is served by the Chicago and Northwestern Railway (C&NW) and is currently used for freight only. Passenger service is available along the C&NW Railway mainline west of the installation.

The only water access to Fort Sheridan is from Lake Michigan; however, there are no cargo-handling facilities such as piers or moorings to receive or dispense goods or personnel.

Military aircraft facilities at Hawley Army Airfield (Helipad), Fort Sheridan, consist of a small limited operation for rotary-wing aircraft. O'Hare International Airport, located approximately 25 miles southwest of the installation, provides worldwide commercial air transportation.

S.3.7.5 Utility Systems

The Fort Sheridan utility systems include a 2.4 million gallon per day (MGD) water treatment facility with a direct water intake from Lake Michigan, 390,000 gallons of storage capacity, and 15 miles of water piping; approximately 14 miles of sanitary sewer lines connected to a central lift station, with an additional 4.5 miles of lines connected to a North Shore Sanitary District Main (NSSD); approximately 13.5 miles of enclosed storm sewers; two primary power sources; three heating plant boilers; and 2.5 miles of steam distribution system piping. An overview of each system is provided below.

Water System

The primary water supply source provided by Lake Michigan is augmented by an emergency water supply from the municipal water systems of the cities of Highland Park and Highwood. The emergency supply can provide up to 1.4 MGD. The existing water treatment facility (Bldg. 29) has a capacity of 2.4 MGD. The maximum effective population which can be supported by the existing water treatment facility exceeds 7,200 (U.S. Army Corps of Engineers, 1984a). Effective population is defined as the product of the number of personnel (military, civilian and dependent) multiplied by the percentage of a 24-hour day spent on the installation.

The water distribution lines vary in condition from fair to excellent. Average water pressure is maintained at 45 psi and there are currently no known low pressure problem areas. The maximum supportable effective population of the distribution system is at least equal to that of the treatment plant (U.S. Army Corps of Engineers, 1984a). Existing water storage facilities can support an effective population of 4,000 (U.S. Army Corps of Engineers, 1984a).

Sanitary Sewer System

The Fort Sheridan sanitary sewer system consists of a network of gravity collection mains, force mains, and small lift stations which transport sewage to a central lift station located on the Lake Michigan shoreline near the terminus of Bartlett Ravine. From this lift station, sanitary sewage flows through approximately 4.5 miles of sewer lines from Fort Sheridan to the North Shore Sanitary Sewer District (NSSD) system in Highland Park which conveys sanitary sewage to the Clavey Road Treatment Plant.

A current agreement with the NSSD provides for a maximum daily flow of 2.6 MGD from the Fort Sheridan system. A meter has been installed in the main pumping station to monitor the rate of flow in gallons per minute (GPM) and gallons per day (GPD), and to limit the flow to a preset rate of 1,800 gallons per minute, or 2.6 MGD.

The maximum supportable populations of the lift station and the collection system are 8,700 and 6,600 respectively (U.S. Army Corps of Engineers, 1984a).

Smoke tests and television inspection surveys performed in conjunction with an inflow and infiltration study completed in 1986 indicated a number of problems with the existing system. A contract for design and repairs to reduce rainwater inflow to the system was completed resulting

in partial reconstruction of manholes and replacement of manhole covers. Disconnection of building downspouts to the sanitary sewers is in progress. The completion of the repairs will alleviate the present overload of the sanitary sewer system during periods of heavy rain and the subsequent discharges of untreated sewage into Lake Michigan.

Storm Drainage System

The storm drainage system extends from the cemetery and the golf course to all paved areas. All storm runoff ultimately drains into Lake Michigan on the east side of the installation. Main outlets to Lake Michigan are by means of six ravines which run from west to east through the area. The average natural slope of the ravines is approximately 2.5 percent from the operations areas to the Lake Michigan shoreline.

Heating and Fuel Systems

Heating and fuel systems at Fort Sheridan consist of a natural gas distribution system and a steam distribution system. The gas distribution system feeds the central heating plant boilers (Bldg. 40) and individual furnaces throughout the installation. The steam distribution system serves approximately 60 to 65 existing buildings. These systems are regularly maintained and are in generally good condition.

Officials of the North Shore Gas Company have stated that there would be no limitation to the Fort Sheridan natural gas supply.

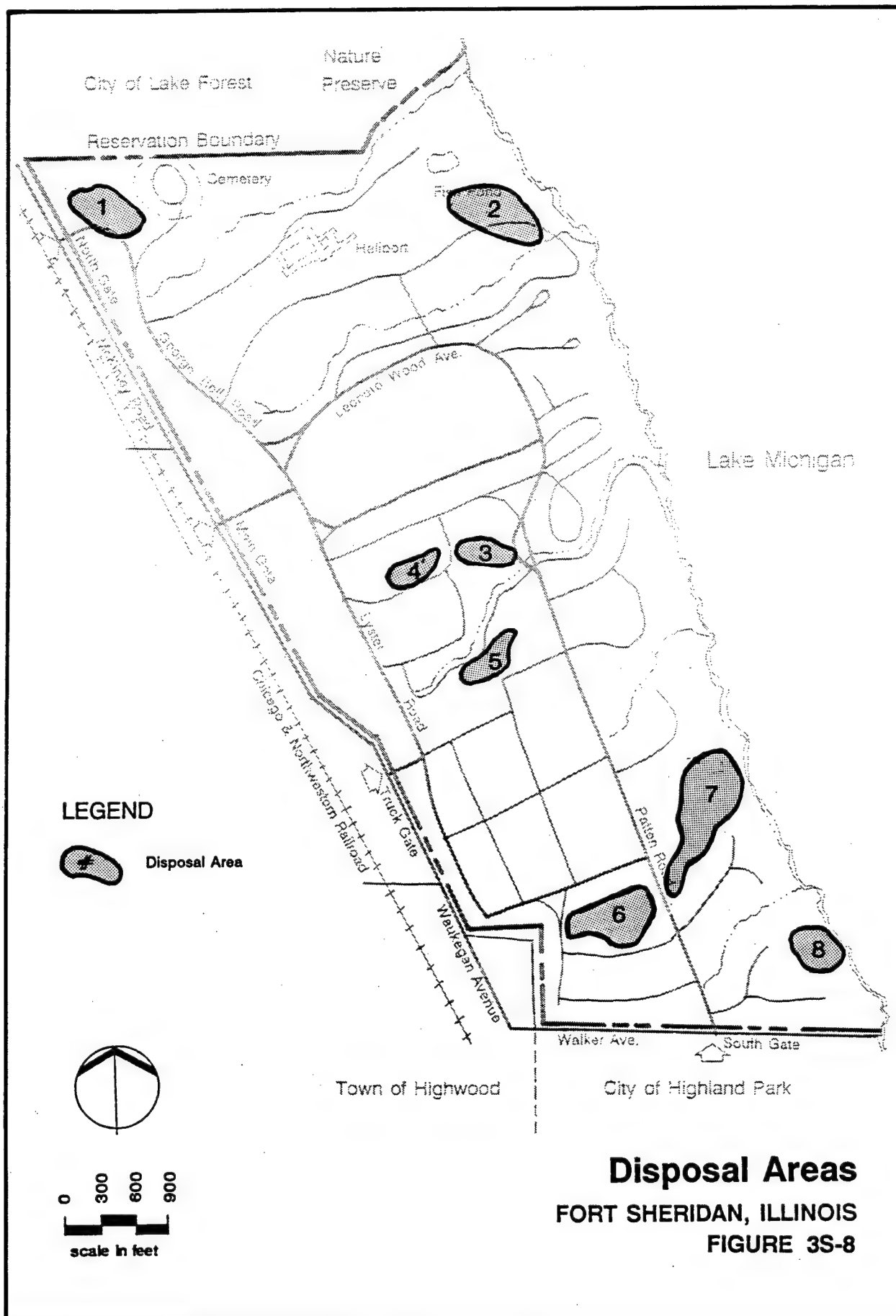
Electrical System

Electrical power is provided by the Commonwealth Edison Company from a substation located approximately 3.5 miles from the installation. The installation distribution system is in generally good condition and has been upgraded by numerous projects in recent years.

The maximum supportable effective population of the electrical system was estimated at 2,740 in the 1984 Expansion Capability Plan. This estimate however, was based upon transformer capacity. Since the above-referenced plan was prepared, additional transformer capacity has been provided at the installation substation. Based upon the existing transformer capacity of 7500 KVA and the assumptions used for calculations in the 1984 Expansion Capability Plan, the maximum supportable effective population is now 7,059.

S.3.7.6 Solid Waste Disposal

All solid waste currently generated at Fort Sheridan is collected by a private contractor and disposed of at a facility outside the installation. As shown on Figure 3S-8, eight solid waste landfill sites have been identified at Fort Sheridan (U.S. Army Corps of Engineers, 1987a). Five of the disposal areas were located in or adjacent to the ravines which traverse the installation



Source: U.S. Army Corps of Engineers, 1987a

from west to east, or along the areas fronting Lake Michigan. Discussions of each of the landfill areas shown in Figure 3S-8 are provided below.

Landfill No. 1. This approximately three acre landfill is mostly covered by concrete and asphalt for use as a vehicle parking and storage area. It was operated from 1940 to the early 1950s and received general refuse. Prior to completion of soil cover, open burning was conducted at this site. Available information does not indicate that hazardous materials were disposed of at this landfill.

Landfill No. 2. This former landfill area (in use prior to WWII) occupies approximately three acres. Excavations in this area have uncovered small pieces of coal and cinders and some reports indicate the disposal of ammunition by detonation on site. There is no record of hazardous waste disposal at this landfill. The site is currently capped with soil, and no cracks were observed in the cover during an installation assessment update completed in May of 1987 (U.S. Army Corps of Engineers 1987a). No leachates were observed along the end of the landfill fronting the Lake Michigan shoreline.

Landfill No. 3. Landfill No. 3 was operated prior to 1947 and received industrial and domestic refuse. Open burning was practiced at this location. Available information does not confirm that hazardous wastes were disposed of at the area; however, the industrial wastes disposed of at the area could have included POL and other potentially hazardous items. The approximately 2.5 acre area is now under an asphalt parking lot.

Landfill No. 4. Landfill No. 4 is a one acre site located immediately west of Landfill No. 3 and between Bldgs. 89 and 66. Available information indicates construction rubble was the only material disposed of at this location. This location was used as a disposal area during the mid-1960s and is visible on a 1967 aerial photograph of the installation.

Landfill No. 5. Refuse disposed of at this location has included cinders, bottles, and construction rubble. Excavations in the area have uncovered Coca-Cola bottles dating back to the early 1900s. The location was used for the disposal of construction rubble in the mid-1960s. Buildings 378 and 133 are constructed on the landfill area. Available information does not indicate disposal of hazardous materials.

Landfill No. 6. Landfill No. 6 is the disposal area located in Wells Ravine west of Patten Road. This landfill was used in the 1960s and was visible in 1967 aerial photographs. Reports indicate disposal of industrial and domestic wastes and building demolition debris. Available information does not include a record of hazardous material disposal; however, some solvents and other POL products are probably buried at this site. Two storm drains underlie Landfill No. 6 and enter Lake Michigan at the discharge end. These drains provide potential conduits for any leachate to migrate into Lake Michigan if infiltration occurs. If leachate is formed and does not infiltrate the storm drain, it would migrate through Landfill No. 7 toward Lake Michigan.

Landfill No. 7. Landfill No. 7, also known as the Wells Ravine Landfill, is located east of Patten Road in the southern part of the installation. The landfill is approximately 7.9 acres in size. The original depth of the Ravine is estimated to be 35 feet.

Fill material included domestic, general, industrial, and hospital wastes. Open burning was practiced at this location prior to 1970. The open-burning procedure was to dig a trench at the base of the landfill near the lakeshore and burn wastes in that trench. Coal ash from the heating plant was often used as temporary cover material.

Materials disposed of at this landfill include waste oil, solvents, paint, paint thinner, paint stripper, cleaning compounds, hospital and veterinary wastes, photographic chemicals, ammunition boxes treated with pentachlorophenol, radioactive instrumentation, sewage treatment plant sludge, incinerator ash, building debris, and domestic and office refuse. (ANL, 1989.)

Landfill No. 8. Landfill No. 8 is located on the southern end of the installation between the housing area and the shoreline of Lake Michigan. The dates of operation of this fill area are unknown; however, it is visible in a 1952 aerial photograph. The area had been seeded and contoured in the 1962 and subsequent aerial photographs. The area is approximately three acres in size. No information is available concerning the types of materials buried at the site. During an onsite assessment by USATHAMA, broken glass, coal cinders, and other small items of construction rubble were observed at the area. No leachate was observed at the landfill.

S.3.8 Socioeconomic Characteristics

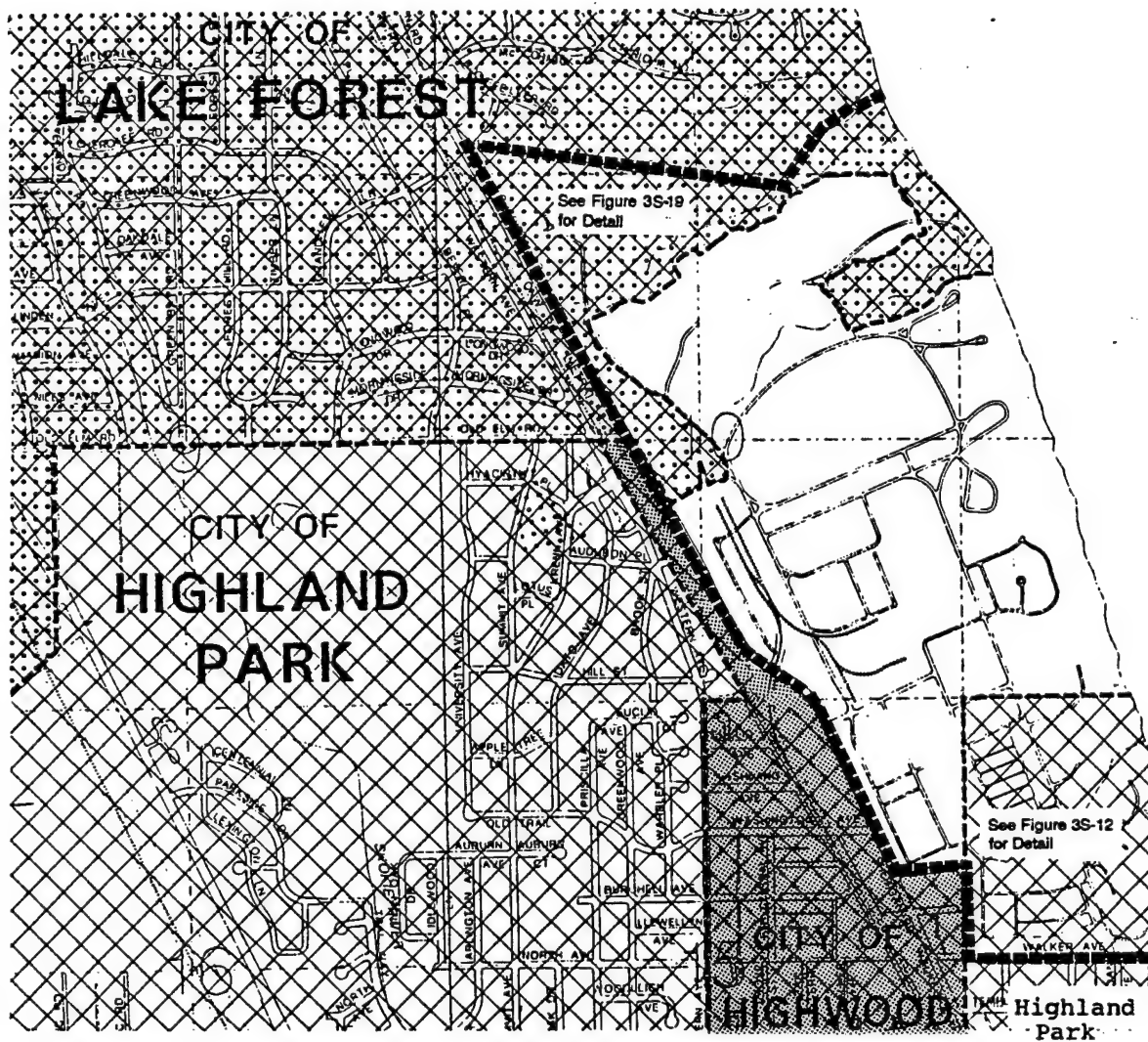
S.3.8.1 Introduction

This section describes pertinent socioeconomic aspects of Fort Sheridan and its surrounding environment at three levels of detail. The first level defines the current population assigned to Fort Sheridan, and existing land use patterns within the installation boundaries.

The second level involves the three communities located directly adjacent to Fort Sheridan including Lake Forest, Highwood and Highland Park (See Figure 3S-9). These communities represent the immediate local area that will be affected by the planned closure action. These communities are discussed in the context of existing land use, zoning and community facility characteristics.

The third level of detail involves a larger regional area which will be impacted by the closure of Fort Sheridan. This regional impact area was defined by the Institute for Water Resources (IWR) as part of their Phase II Socioeconomic Effects Analysis for Fort Sheridan (IWR, 1989). Based on the IWR report, the regional area of influence has been defined to include all of Lake County as illustrated on Figure 3S-10.

The affected socioeconomic environment of Lake County is described herein in the context of regional population, economic and housing trends.



LEGEND

- City Limits
- Fort Sheridan Boundary
- ▨ City of Lake Forest
- ▩ City of Highland Park
- ▧ Town of Highwood



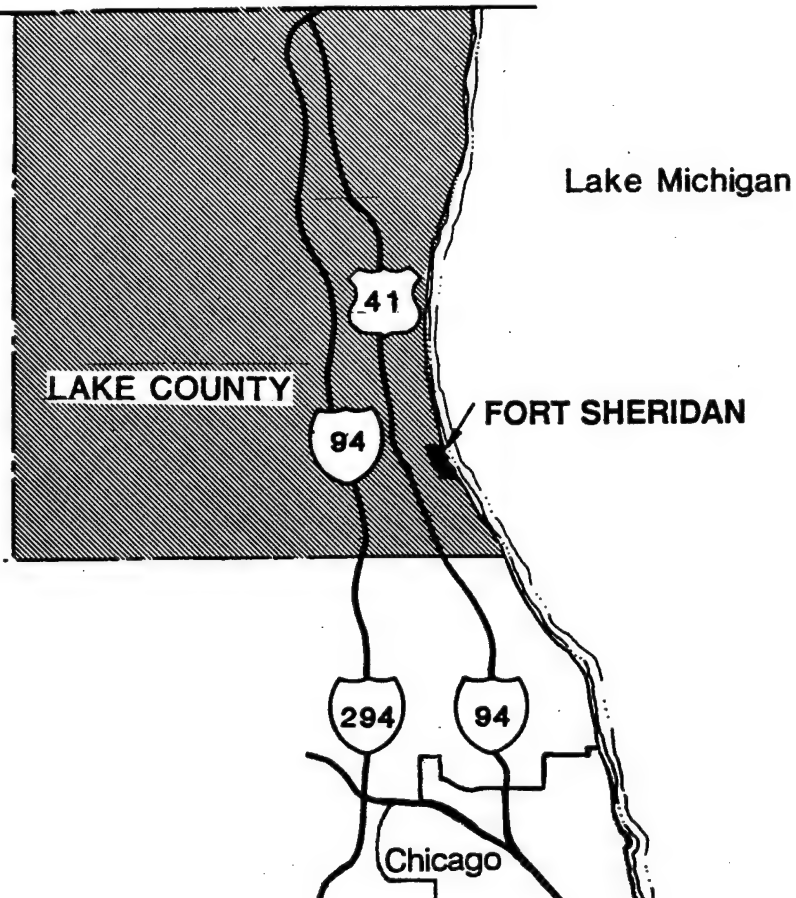
No Scale

Surrounding Jurisdictions

FORT SHERIDAN, ILLINOIS

FIGURE 3S-9

Wisconsin
Illinois



Area of Regional Influence as Used
to Evaluate Socioeconomic Impacts



0 2 4 6
scale in miles

Area of Regional Influence

FORT SHERIDAN, ILLINOIS
FIGURE 3S-10

S.3.8.2 Fort Sheridan Population and Land Use

The total authorized personnel at Fort Sheridan (as of March 1990) includes approximately 1,300 military and 2,000 civilian positions, for a total population of approximately 3,300. In addition, there are approximately 2,800 dependents of military personnel, and 4,200 dependents of civilian personnel. Approximately 640 military live on-post with 1,400 dependents, and approximately 650 military personnel with 1,400 dependents live off-post.

Fort Sheridan includes approximately 700 acres along Lake Michigan in Lake County, Illinois. Land areas at the installation are used for some 14 major functions and activities as summarized in Table 3 S-5. The existing land uses are essentially unchanged since 1976 with adjustments for present assignments of temporary facilities (World War II Barracks), and the demolition and replacement of other temporary buildings (See Figure 3S-11).

Areas utilized at the installation for training purposes are predominately administrative or educational in nature. There are no open firing ranges on the installation, however, the trap-shooting facility remains at the extreme northeast corner of the installation for recreational purposes only. The reserve center has a five-bay indoor rifle range. The airfield was converted to a rotary-wing aircraft facility thereby reducing clearance slope requirements to areas within the present installation boundaries. Part of the golf course is used for training activities as needed.

Military housing is located along the east, south, and west peripheries with administrative and support activities clustered in the center of the installation. The northern 25 percent of the installation contains recreation facilities, the helipad, reserve training center, cemetery, and two ravines. The lakeshore contains a beach recreation area.

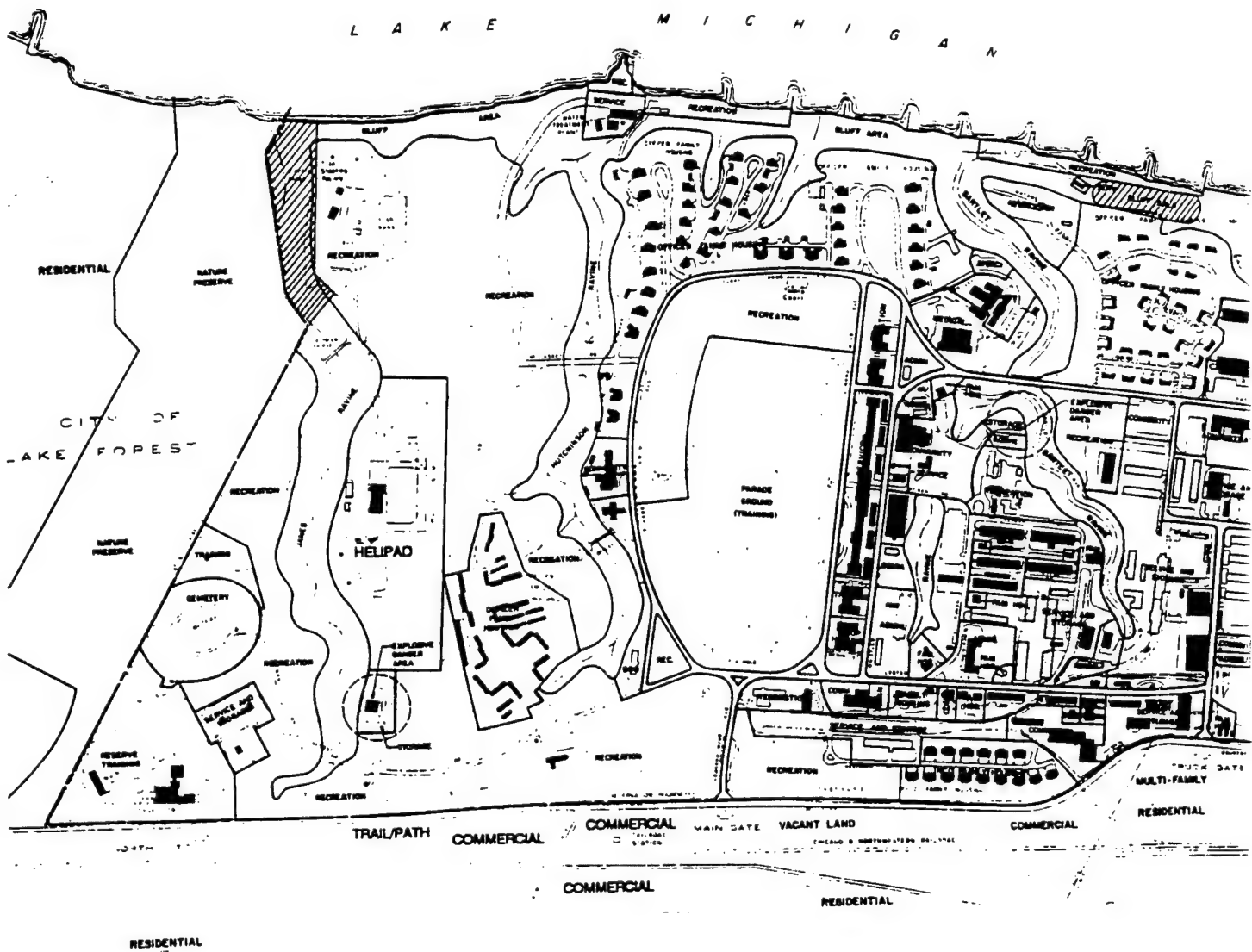
S.3.8.3 Adjacent Community Land Use and Zoning

Highland Park Land Use and Zoning. The City of Highland Park is located on the southern boundary of the installation. Part of the southern one-third of the installation is actually in the city (See Figure 3S-12). Highland Park incorporated prior to the establishment of Fort Sheridan and the status of that part of the installation within the city has not changed. Land use in Highland Park, south of the installation boundary is all single family residential on varying lot sizes. A synagogue is located on the lakeshore immediately south of the installation boundary.

The Comprehensive Master Plan for Highland Park recommends that the part of the installation east of Patten Road within Highland Park, almost 160 acres, be used for a new park facility, and the remainder of the installation within the city and the area of the city immediately adjacent to the installation to remain residential.

According to the Highland Park Zoning Ordinance District Map, the southeastern region of Fort Sheridan is designated as a Low to Moderate Residential District (R-4). Certain government, educational, religious, and recreational facilities are permitted on an as needed basis. Permitted uses consist of single and multi-family dwellings, rectories, parking facilities, and in-home offices.

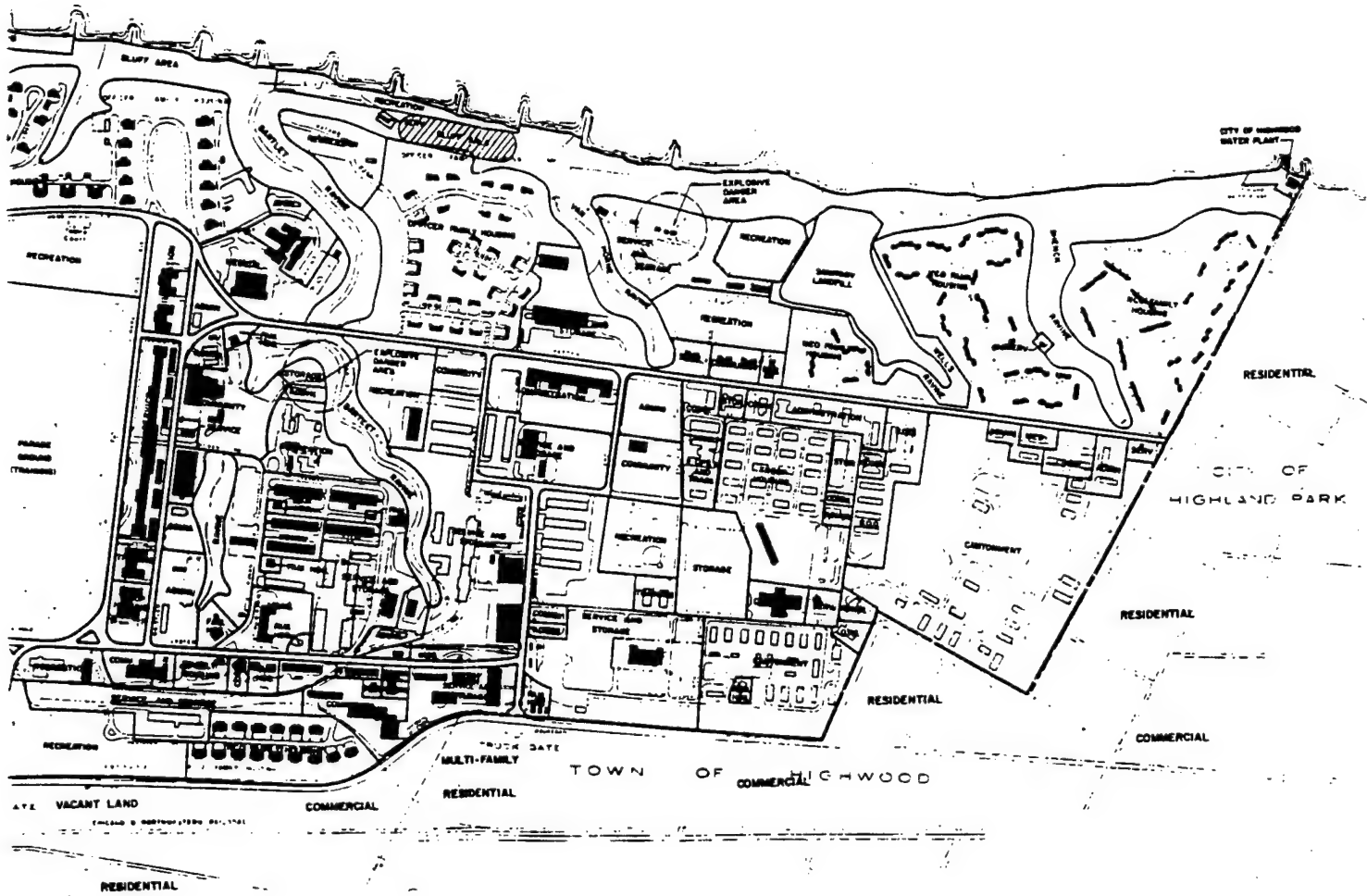
Highland Park's zoning of property within and adjacent to Fort Sheridan is shown on Figure 3S-14 and the definition and regulation for each pertinent zone with regard to lot dimensions, density, and setbacks are shown in Table 3 S-6.



LEGEN

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C H I G A N



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FORT S

Fort Sheridan Land Use Categories

- [illegible]

FIGURE 3S-11

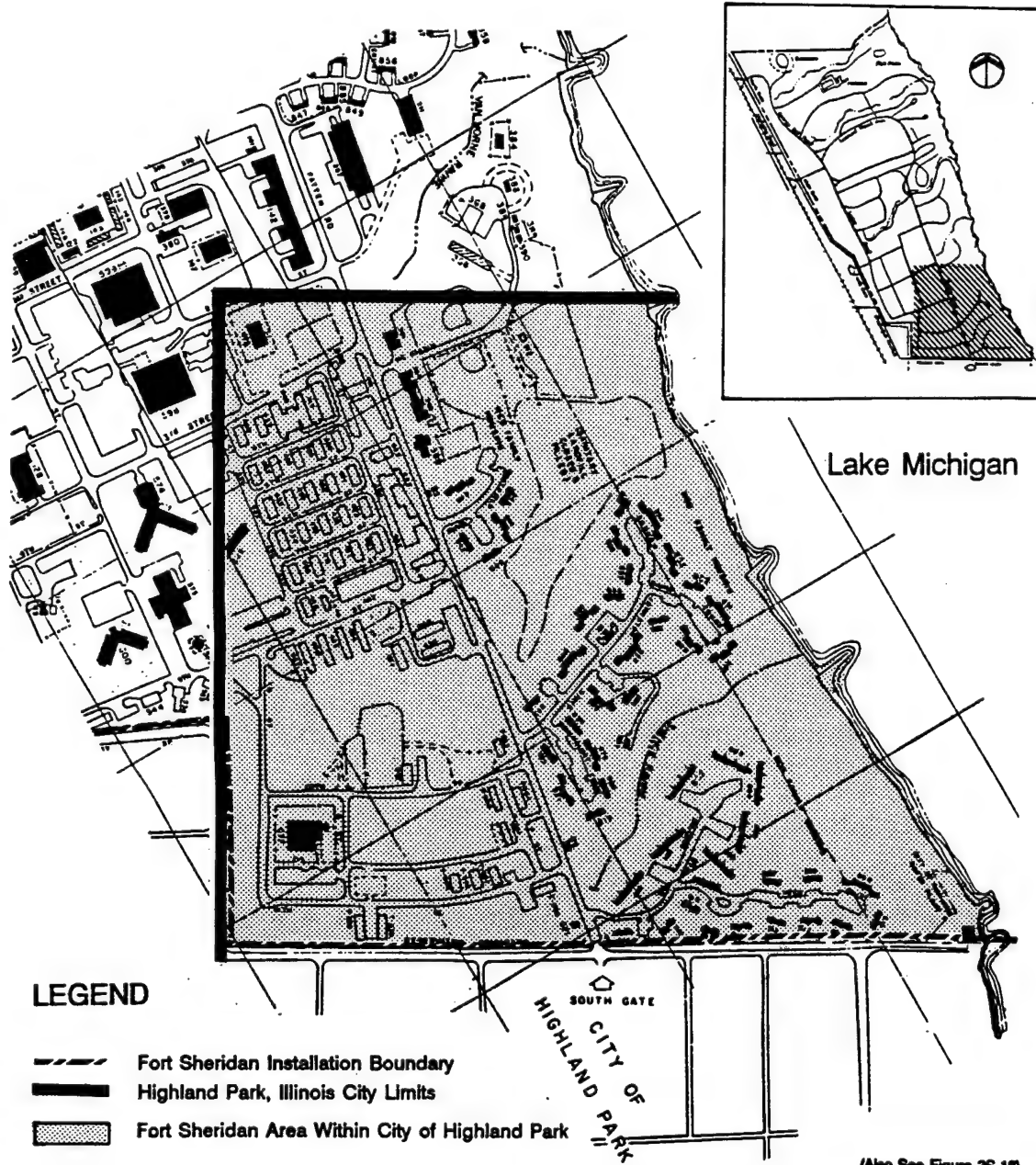
TABLE 3 S-5

EXISTING FORT SHERIDAN LAND USE ALLOCATIONS

Land Use Function of Activity	Approximate Area (Acres)	Percent of Total Area
Administration	32	5
Helipad ¹	10	1
Unaccompanied Officer Quarters	5	1
Cantonment Area	37	5
Cemetery	7	1
Community Facilities	26	4
Family Housing (Officer and NCO)	117	17
Medical	6	1
Ravines, Bluffs, and Shoreline	103	15
Recreation	174	25
Service and Storage	91	13
Training, Parade Ground, and Operations	59	8
Troop Housing Area	12	2
Other Areas:		
(1) Major Internal Roads	15	2
Total	694	100.0

¹ Does not include Take-Off Safety Zone or Approach-Departure Zone.

Source: U.S. Army Corps of Engineers, 1984a



LEGEND

- Fort Sheridan Installation Boundary
- Highland Park, Illinois City Limits
- Fort Sheridan Area Within City of Highland Park



No Scale

**Area of Fort Sheridan
Within the City of Highland Park**

FIGURE 3S-12

(Also See Figure 3S-16)

LEGEND

Fort Sheridan Boundary

City Boundaries

Lake Forest Zoning:

R5 Single Family (130K Sq. Ft. Min.)

R3 Single Family (40K Sq. Ft. Min.)

R2 Single Family (20K Sq. Ft. Min.)

Highland Park Zoning

R4 Residential (Low to Moderate Density)

R5, R6, RM1 & RM2 Residential (Moderate to High Density)

Highwood Zoning

B-1 Business

PUD Planned Unit Development

R2, R4 Residential

Lake County Zoning

SU Special Use District



0 300 600 900
scale in feet

**Generalized City & County Zoning
On & Adjacent to Fort Sheridan**
FIGURE 3S-14

Source: Cities of Lake Forest, Highland Park, Highwood

with a minimum lot size of 20,000 square feet. That area of the installation annexed by the city is zoned in the highest residential category, R5 Single Family Residence with a minimum lot size of 130,000 square feet. The permitted uses are detached single family dwellings; municipal buildings and facilities; farms, stables, and kennels with housed farm animals not within 200 feet of a residential district; and nurseries, flower gardens and accessory buildings. Table 3 S-7 provides a summary of pertinent residential zoning district requirements as established in the Lake Forest ordinance.

TABLE 3 S-7
SUMMARY OF LAKE FOREST ZONING DISTRICTS
ON OR ADJACENT TO FORT SHERIDAN

<u>Zoning and General Use</u>	<u>Min. Lot Size (sq.ft.)</u>	<u>Front</u>	<u>Set Backs (ft.)</u>		<u>Rear</u>	<u>Height Required (ft.)</u>		<u>Min. Lot Width (ft.)</u>
			<u>In-Side</u>	<u>On-Side</u>		<u>Princ.</u>	<u>Accs.</u>	
RESIDENTIAL:								
(R-5)								
Single Family	130,000	50	50	50	50	35	25	250
Farms/Stables	435,600	200	200	200	200	35	25	500
Nurseries/FI Gd (R-3)	217,800	100	100	100	100	35	25	300
Single Family	40,000	40	15	40	40	35	25	125
Nurseries/FI Gd (R-2)	217,800	100	100	100	100	35	25	300
Single Family	20,000	40	12	40	35	35	25	75
Nurseries/FI Gd	217,800	100	100	100	100	35	25	300

Source: U.S. Army Corps of Engineers, 1989a.

Lake County Zoning. Under the Lake County ordinance, the central portion of Fort Sheridan is designated as a Special Use District, (SU). This district was originated to accommodate a variety of uses creating unique impact upon adjoining properties. The property types are ones that cannot be categorized with the other districts. The permitted uses included, but are not limited to, public stables, agricultural facilities less than five acres, storage of construction equipment and materials, manufacturing and warehouse facilities, research laboratories, truck or rail terminals, cemeteries, churches and synagogues, government offices and municipal buildings, recreational and entertainment use buildings, aviation facilities, personnel training centers, forests and open space. The zoning regulations are non-restrictive with a maximum floor factor of 0.50 and maximum impervious surface ratio of 0.75 (See Table 3 S-8).

TABLE 3 S-8

SUMMARY OF LAKE COUNTY ZONING DISTRICT
WITHIN FORT SHERIDAN BOUNDARIES

<u>Zoning and General Use</u>	<u>Open Space</u>	<u>Density Factor</u>	<u>Floor Area</u>	<u>Surface Ratio</u>	<u>Minimum Lot Size</u>
Special Use District	N/A	N/A	0.50	0.75	N/A

Source: U.S. Army Corps of Engineers, 1989a.

S.3.8.4 Community Facilities

Surrounding Area Facilities. The localities of Highland Park, Highwood, and Lake Forest, because of their proximity to the Chicago metropolitan area, have access to an extensive range of community facilities. These facilities include nationally famous cultural institutions; centers of higher learning; museums; parks; spectator and participatory sporting activities; theater; medical schools and hospitals.

Educational facilities in Highland Park, Highwood and Lake Forest include elementary, junior, middle and high school facilities. Highland Park is the home of the North Suburban Special Education District which serves students from twenty-three neighboring communities. Several private elementary and high school facilities are located in Highwood and Lake Forest. Additionally, two four-year colleges are located in the community of Lake Forest. Military personnel assigned to Fort Sheridan send their children to area schools. An estimated 1,500 dependents of Fort Sheridan military personnel attend area schools.

Medical facilities are located in Highland Park (325 beds) and in Lake Forest (82 beds). Local military personnel assigned to Fort Sheridan and retired military in the area use on-post medial facilities. Police and fire protection services are provided to local residents by Highland Park, Highwood and Lake Forest. On-post police and fire protection are provided by Fort Sheridan personnel.

Recreation facilities in Highland Park, Highwood and Lake Forest include open park land, beach areas, golf courses, and recreation centers. Fort Sheridan offers military personnel recreational resources on-post that include open park areas, beaches, a golf course, outdoor active recreational areas and indoor recreational facilities.

On-Post Facilities. Facilities and services provided by Fort Sheridan that will be impacted by the planned closure and realignment action are summarized below:

- Post Exchange - A full-service facility operated by the Army-Air Force Exchange Services (AAFES).

- Commissary - This facility provides military and military retiree personnel and their dependents an on-post supermarket.
- Library - Books, magazines, newspapers, audio-visual materials, and recordings are available at the Post Library (Bldg. 1A) on Bradley Loop.
- Post Chapel - The chapel program at Fort Sheridan includes regular weekly services for both Catholic and Protestant worshippers, with a well-rounded religious education program. The average weekly number of retirees and dependents serviced by the facility is estimated at 250 by the Post Chaplain.
- Community Club - The Community Club is located in Bldg. 31. Membership is offered free to the Fort Sheridan community. The Club offers a wide variety of services which include catering, arrangement of private parties and luncheons. The average number of parties booked for retiree activities is estimated at 4 per month.
- Museum - The Fort Sheridan Museum (located in Bldg. 33) collection includes: a sculptured marble bust of General Philip Henry Sheridan completed in 1885; a Germantown rockaway carriage; a collection of military miniatures; and an assortment of firearms, edged weapons, and assorted military equipment dating back to Civil War era medical instruments.
- Recreation Facilities - Recreational facilities at Fort Sheridan include a beach area, gymnasium, golf course and clubhouse, recreation center, bowling alley, trap range, automotive crafts shop, youth center, skill development center, softball and baseball fields, and a swimming pool.
- Other Community Facilities - Other community services and facilities at Fort Sheridan include the Army Community Service Center, Army Emergency Relief, Community Counseling Center, Child Development Services, and Army Education Center.

S.3.8.5 Regional Population (Lake County)

Based on information provided by the Institute for Water Resources (IWR) 1989, Phase II Socioeconomic Effect Analysis - Fort Sheridan Related BRACO Actions, Socioeconomic Impacts at Fort Sheridan, the population of the region grew by nearly 54,000 persons from 1980 to 1987. The 1989 population for the region has been estimated by IWR to be 509,807 and is projected to increase to 554,799 by 1994, an estimated increase of 44,992 persons over five years. The following shows the population growth over the period 1980 through 1994:

Population				
Region	1980	1987	Estimated 1989	Projected 1994
Lake County	440,372	494,300	509,807	554,799

In general the region of influence, Lake County, surrounding Fort Sheridan has experienced a steady growth in population and is anticipated to continue into 1994. The regional household total based on census information, grew from 102,948 households in 1970 to 139,715 households in 1980, a total increase of over 36,000 households. Based on the information presented in the IWR report mentioned above, the estimated total number of households for 1989 are 170,898, a 31,183 household increase over households reported in 1980. This steady growth in the number of households is expected to continue into 1994 and is projected to reach a total of 191,085 households as shown below.

Households				
Region	1970	1980	Estimated 1989	Projected 1994
Lake County	102,948	139,715	170,898	191,085

S.3.8.6 Regional Economy (Lake County)

The economic analysis provided by the Institute for Water Resources Socioeconomic Report on Fort Sheridan indicates that total employment for the region in 1980 was 206,956 and in 1987 was 260,528. This represents a total increase in employment of more than 53,000. This steady rise in employment for the region has lead to a current regional unemployment rate of 4.3 percent.

An analysis of average annual data indicates that the 1988 civilian labor force was 275,556. In 1989 the largest employer in the regional industrial sector was Services which employs approximately 24.5 percent of the total employed labor. The labor force which is directly employed at Fort Sheridan represents approximately 1.2 percent of the total civilian employed labor force in the region. The 1989 estimated regional per capita income is \$18,391 and the 1994 regional per capita personal income is projected to be \$23,008. Total regional personal income for 1987 was estimated to be \$10,593.7 million.

S.3.8.7 Regional Housing (Lake County)

The 1980 census shows a regional total of 148,192 housing units and a regional housing vacancy rate of 5.7 percent. Housing choices, including styles, prices and neighborhood environments vary throughout the region. Approximately 650 military and 1,400 dependents live off-post. These off-post military personnel and dependents, on an average, pay \$600-800 per month for rental units or own homes with an average fair market value ranging from \$90,000 to \$120,000.

SECTION H - FORT BENJAMIN HARRISON AFFECTED ENVIRONMENT

H.3.2 Mission/Functional Activities

Fort Benjamin Harrison is a U.S. Army Training and Doctrine Command installation (TRADOC) which houses the U.S. Army Soldier Support Center. The mission of the Soldier Support Center is:

- To operate an administrative/school center supporting military occupational development.
- To assess manpower and personnel changes associated with force modernization.
- To develop personnel and administrative functional doctrine and training programs within the Army.
- To develop and publish Army concepts and doctrine in proponent areas and to participate in the combat development process.

The Soldier Support Center operates the following activities at Fort Benjamin Harrison:

- Defense Information School
- Noncommissioned Officer Academy
- US Army Soldier Support Institute, which includes:
 - U.S. Army Finance School
 - U.S. Army Recruiting and Retention School
 - U.S. Army Physical Fitness School
 - U.S. Army Adjutant-General School

Other missions include providing logistic support to 23 U.S. Army Reserve centers in Indiana and Illinois, and to four Area Maintenance Support Activities (AMSA) in Indiana, and the following tenant units and activities:

Army-Air Force Exchange Service
General Accounting Office
Corps of Engineers, Louisville District, Indiana Area Office
Defense Contract Administration Service Management Area, Indianapolis
Defense Contract Audit Agency
Defense Information School
Defense Investigative Service
Defense Reutilization and Marketing Office
Deputy Commander for Mobilization TRADOC
GSA-Federal Supply Service - Quality Control Division
Hawley Army Community Hospital
Secretariat for DA Selection Boards
U.S. Army Audit Agency, Indianapolis Area Office
U.S. Army CID First Region

U.S. Army Commissary
U.S. Army Information Systems Command
U.S. Army Finance and Accounting Center
HQ 123rd U.S. Army Reserve Command, and U.S. Army Reserve Center
U.S. Army Enlisted Records and Evaluation Center
Directorate of Dental Services
TRADOC Management Engineering Activity
TRADOC Analysis Command
U.S. Army Readiness Group-Harrison
AMEDD Procurement

H.3.3 Physical Environment

H.3.3.1 Climate

The climate of Fort Benjamin Harrison is characterized as continental with warm humid summers and moderately cold winters. Climatic conditions are influenced by warm, moist air masses moving from the Gulf of Mexico up the Mississippi and Ohio valleys, or by cold, dry air masses from Canada which move across the plains from the northwest to the southeast. Temperatures generally range between extremes of 0°F and 95°F. Precipitation is generally well distributed throughout the year. Total annual precipitation averages 40 inches. The area is subject to periodic severe weather conditions including tornadoes, windstorms, flash flooding and abnormal accumulations of snow.

H.3.3.2 Topography

Topography on Fort Benjamin Harrison includes level to nearly level uplands, moderate to severe slopes, terraces and bottomlands. Elevations vary from 870 feet above mean sea level in the southern portion of the post, changing gradually in the northwest to rolling upland and terrace, to bottomland at elevation 732 feet above mean sea level along Fall Creek. Toward the northeast the terrain drops rapidly from upland to bottomland. Some areas north of Fall Creek rise rapidly from the bottomland elevation of 732 feet above sea level to the upland elevation of 835 feet above sea level. Drainage patterns south of Fall Creek are to the northwest, toward and ultimately entering, Fall Creek. Drainage patterns north of Fall Creek vary from southerly to southeasterly along channels consisting of large open ditches, gullies and intermittent streams.

H.3.3.3 Geology and Mineral Resources

Fort Benjamin Harrison is underlain by quaternary (pleistocene) unconsolidated deposits over bedrock units of Devonian or Silurian age. These unconsolidated deposits generally are below five feet or more of soil and are approximately 200 feet thick. The deposits are usually made up of two kinds: (1) recent silt, sand and gravel (the Martinsville Formation in Indiana), and (2) Wisconsin glacial till (the major pattern of the Trafalgar Formation in Indiana).

The floodplain of Fall Creek is underlain by deposits of recent silt, sand and gravel. These deposits are mostly alluvium, but may include colluvial and paludal deposits. Upland areas are generally underlain by Wisconsin glacial material consisting mainly of ground-moraine, limited amounts of end moraine deposits and some ice-contact stratified drift. Bedrock, at depths of between 200 and 250 feet lies beneath the unconsolidated deposits and is of two kinds, Devonian and Silurian. Rocks of Silurian age are found underlying most of the northwestern portion of the post. These deposits are over 150 feet thick and consist of limestone, dolomite and shale. Rocks of middle Devonian age underlie the unconsolidated deposits under the cantonment and administrative areas of the post. These deposits are at depths of approximately 350 feet or more.

H.3.3.4 Soils

Soils at Fort Benjamin Harrison have been grouped into three categories including bottomland soils, terrace soils and upland soils. Bottomland soils are located along Fall Creek and its tributaries. The soils in this category are classified as Genessee, which are deep, well-drained soils subject to flooding. Slopes in this area are less than two percent and these soils have few or no limitations or hazards when they are cleared or cultivated. Poorly drained soils may be found in depressions or swales in the immediate area.

Terrace soils include Miami, Fox and Ockley and are generally located adjacent to the bottomland. These soils are deep, well drained and have variable slopes ranging from two percent to 25 percent. Upland soils are identified as Brookston, Crosby and Hennepin soil series. These soils are deep, well drained to poorly drained soils and are generally located in areas with two percent slopes. The specific distribution of soil types is documented in the 1978 Soil Survey for Marion County, Indiana.

H.3.3.5 Air Resources

Air quality in Marion County is monitored by the Air Pollution Control Division of the Indianapolis Department of Public Works. The Public Works station, which is located on the western side of the installation, measures ozone. Past monitoring station data indicate that the air quality in the vicinity of Fort Benjamin Harrison is generally good, with annual average values for suspended particulates consistently below the primary standard of 75 micrograms per cubic meter and the secondary standard of 60 micrograms per cubic meter. The Indianapolis (Marion County) area however, has been designated non-attainment for sulfur dioxide and ozone and most of the area is designated non-attainment for particulate matter. Central Indianapolis is designated non-attainment for carbon monoxide.

The primary point source of air pollutant emissions on the installation is the central energy facility. In the past, the central energy plant produced steam using coal-fired boilers which resulted in the emission of particulate matter and sulfur dioxide. Malfunctions of control equipment associated with the boilers resulted in the powerhouse being out of compliance with Indiana Air Pollution emission limits for particulate and sulfur dioxide emissions. In order to prevent future violations, the Department of the Army agreed to install gas/oil-fired boilers at the energy plant. Installation of two gas-fired boilers was completed around mid-December 1989. Currently, steam generated on the installation comes from these boilers or a pre-existing gas-fired boiler.

H.3.4 Water Resources

H.3.4.1 Groundwater

Groundwater at Fort Benjamin Harrison and the surrounding area is available from the unconsolidated deposits of glacial drift and also from the underlying limestone bedrock. Most of the groundwater in both the Pleistocene glacial drift aquifer and the Silurian-Devonian bedrock aquifer flows toward Fall Creek. This pattern of subsurface movement is produced largely by the Geist Reservoir, which has caused water levels in the immediate vicinity to be somewhat higher than expected under natural conditions. The general direction of flow is from the area of higher groundwater level at Geist Reservoir to the areas of lower groundwater level away from the reservoir.

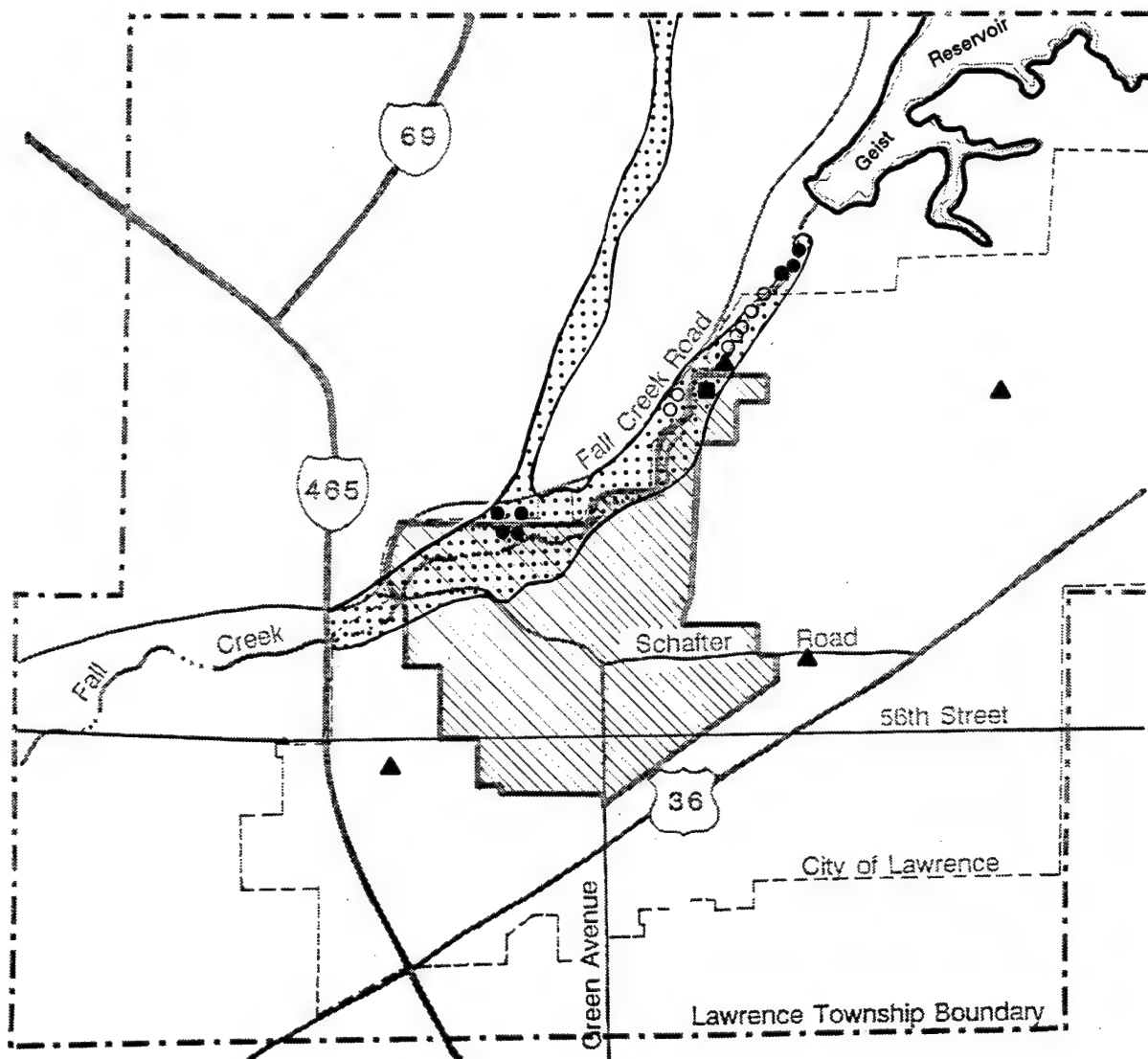
Groundwater use in Marion County is estimated to range from 55 to 58 MGD with industrial users consuming approximately 60 percent of the total volume. Because the groundwater resources of most of Marion County (including the area within and around Fort Benjamin Harrison) remain relatively undeveloped, it is anticipated that production from the existing aquifers could be increased several fold without exceeding recharge capacities or reducing water levels.

There are six wells in the well field in the northern extremity of the reservation (See Figure 3H-1). Groundwater use on the installation is approximately 30 million gallons per month with a peak usage in excess of 42 million gallons per month.




Aquifers within the area consist of the sand and gravel alluvium along Mud and Fall Creeks and deep limestone aquifers of the Silurian and Devonian formations. Small shallow wells (70 - 150 feet) located in sand and gravel aquifers produce between 100 and 400 GPM. In contrast, yields of large diameter bedrock wells are known to be more variable, ranging from 30 to a reported 1,200 GPM. Typical water levels range from 75 to 140 feet below the surface. Locations of existing and proposed wells and the location and extent of major aquifers in the area are shown in Figure 3H-1.





The United States Geological Survey (USGS) found that the groundwater in this aquifer in Marion County is of acceptable quality for most uses although it is quite hard. Average hardness of untreated water at Fort Benjamin Harrison was 230mg/l. Specific conductance values ranged from 508 to 1,760 microohms, whereas values of dissolved solids were between 304.8 and 1,056 mg/l. The average value observed at Fort Benjamin Harrison was 432.6 mg/l.

The USGS Report (1975) calculated groundwater seepage to Fall Creek and provided a steady-state analysis of the present county groundwater system indicating a recharge rate of approximately 0.17 ft/yr. Based upon known pumpage rates, seepage calculations, and recharge rates, the report concludes that the glacial-outwash aquifer is a highly valuable water source capable of supporting an additional pumpage of at least 75.5 MGD.




LEGEND

-  Fort Benjamin Harrison
-  City of Lawrence, Indiana
-  Extent of Aquifer (Approximate)

-  Existing Well, Fort Benjamin Harrison
-  Existing Well, Indianapolis Water Company
-  Future Well, Indianapolis Water Company
-  Existing Well, City of Lawrence, Indiana



0 1000 2000 3000

 scale in feet

Groundwater Resources Lawrence Township, Indiana FORT BENJAMIN HARRISON, INDIANA FIGURE 3H-1

H.3.4.2 Surface Water

Lakes and Streams. There are no natural lakes in Marion County, however numerous gravel pit ponds, small impoundments, and two large reservoirs (Eagle Creek Reservoir and Geist Reservoir) are located in the County. Eagle Creek Reservoir is located in the northwestern portion of the county, and Geist Reservoir is located northeast of Fort Benjamin Harrison. Both reservoirs supply water to the Indianapolis area and surrounding communities. In addition, Indian Lake is an impoundment of approximately 65 acres located upstream of the northeast corner of the installation, on Indian Creek.

The four major streams which traverse the Fort Benjamin Harrison property are Fall Creek, Lawrence Creek, Mud Creek, and Indian Creek. Fall Creek runs along part of the northern boundary and through some of the northern portions of the installation draining to the southwest. Lawrence Creek flows from south to north across the post. Mud Creek crosses a portion of the northern area of the installation before joining Fall Creek. Indian Creek briefly crosses the installation at the extreme northeastern sector draining westward into Fall Creek. Specific discharge data for each of the above-described streams are given in the United States Geological Survey (USGS) Water Data Reports.

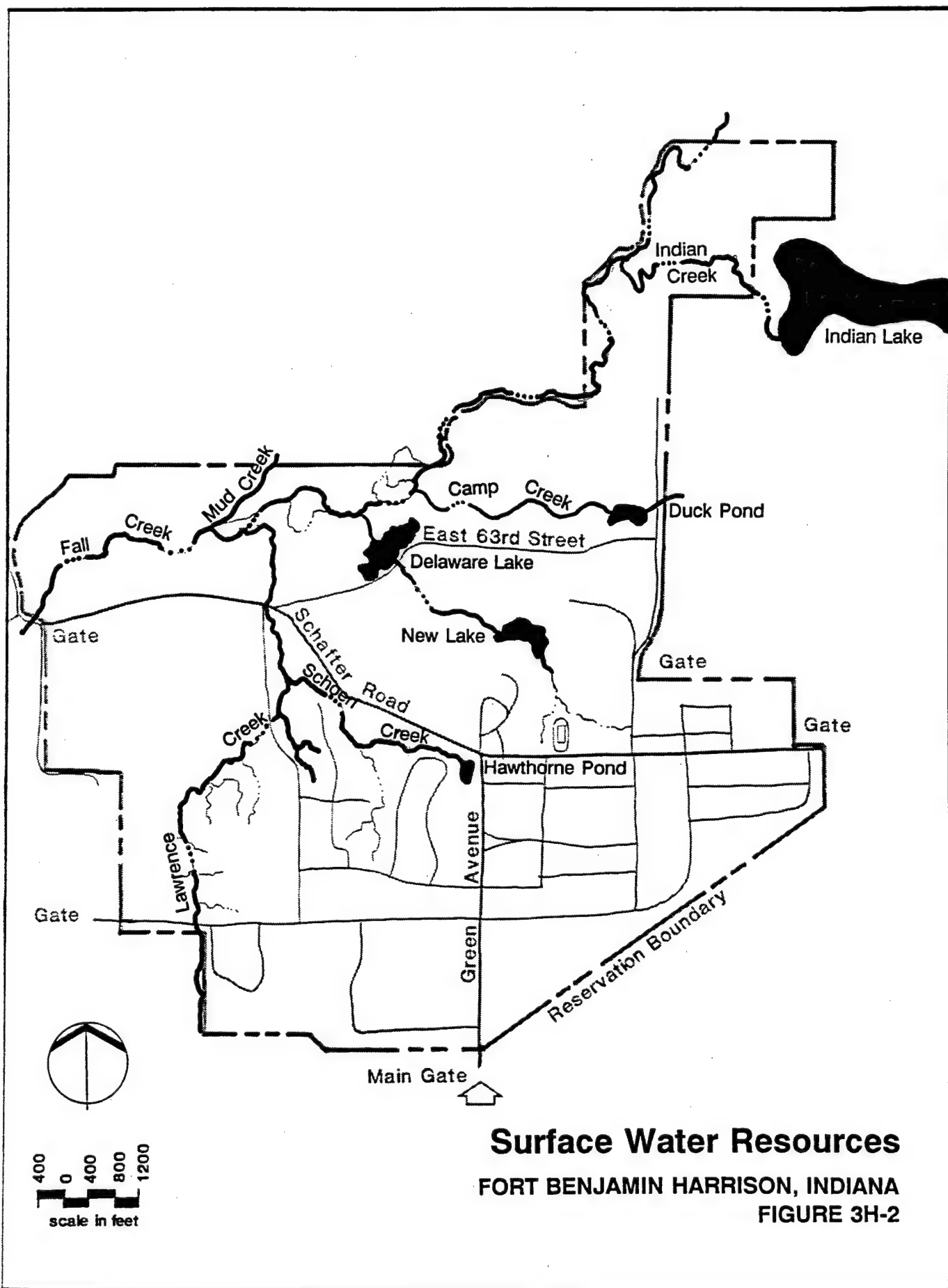
The three intermittent streams on the installation consist of Camp Creek, Fort Branch and Schoen Creek. Camp Creek flows from the vicinity of 63rd Street and Lee Road northwesterly through Duck Pond into Fall Creek. Fort Branch begins west of Hawley Army Community Hospital, flowing northwesterly through New Lake and Delaware Lake into Fall Creek. Schoen Creek begins north of Building 716 and flows north, then northwesterly until its confluence with Lawrence Creek at the intersection of Shafter Road and Glenn Road.

Three man-made lakes are located southeast of Fall Creek, in the east-central portion of the installation. Delaware Lake, which is of scenic quality, is approximately 7.5 acres; New Lake is approximately six acres; and Duck Pond, the smallest of the three, is approximately one acre. All three are stocked with fish and are designated as fishing and picnic areas. Water is pumped from Delaware Lake to supply the golf course irrigation system. In addition to the three lakes described above, a small impoundment (Hawthorne Pond) is located just north of Building 600 in a small park. This pond has a surface area of approximately 0.80 acres and is stocked with fish (See Figure 3H-2).

Water Quality. Water quality regulations promulgated by the Indiana Stream Pollution Control Board (ISPCB) specify water quality for all streams and impoundments within Indiana. In accordance with ISPCB classifications, all streams within the eight county Indianapolis Standard Metropolitan Area (SMA) must satisfy the criteria for aquatic life and recreation.

Specific maximum concentrations of chemical constituents have also been established for streams designated for public and food processing industry water supply. Fall Creek, which runs through Fort Benjamin Harrison, is such a stream, since it is a water supply source for the City of Indianapolis. These criteria are more restrictive than the standards for the aquatic life classification.

The water quality in Fall Creek from Geist Reservoir to the West Fork White River is monitored by a number of agencies. The Indiana Department of Environmental Management (IDEM) has two regularly sampled stations and the Indianapolis Water Company (IWC) has six regularly sampled stations. Irregular sampling of the stream has been carried out by other agencies.



Source: U.S. Army Corps of Engineers, 1984a.

Appendix B of the Water Quality Management Plan for the Indianapolis-Marion County Metropolitan Area, provides information for stations, parameters measured, the time periods during which sampling was taken, and the sampling agency.

The Fort Benjamin Harrison sewage treatment facility does not contribute to the degradation of local water quality as it was connected to the regional sewage system in November 1980.

A survey for pesticide and PCB contamination of streams within Fort Benjamin Harrison was conducted on May 16-17, 1980, by the U. S. Army Environmental Hygiene Agency (AEHA), Aberdeen Proving Ground, MD. Based on AEHA findings, it can be concluded that Fort Benjamin Harrison operations and activities do not contribute to pesticide or PCB contamination of streams or waterways passing through the installation. A copy of AEHA's Final Report is on file at Fort Benjamin Harrison.

The U.S. Army Environmental Hygiene Agency (AEHA) performed a Water Quality Engineering Study of Delaware Lake on June 21-25, 1982. AEHA's findings confirmed the chemical water quality of the lake to be good. The chemical analysis confirmed the suitability of utilizing Delaware Lake as a natural bathing area. Results of priority pollutant analysis of water samples indicate that the lake is of excellent organic chemical quality as the samples did not contain any of the priority pollutants above the limits of detection. Groundwater Well No. 5 is used during the summer months to maintain an overflow stream which serves as the main supply for Delaware Lake located approximately one mile downstream.

H.3.4.3 Floodplains/Wetlands

Floodplains. Floods which occur in Marion County and on the water courses at Fort Benjamin Harrison are mostly in winter and spring due to heavy rains. Flash floods do occur, however, at other times of the year as a result of intense thunderstorms.

The floodplain and floodway boundaries in Lawrence Township are shown in Figure 3H-3. Previous floods on Fall, Lawrence, and Indian Creeks at Fort Harrison have caused some damage.

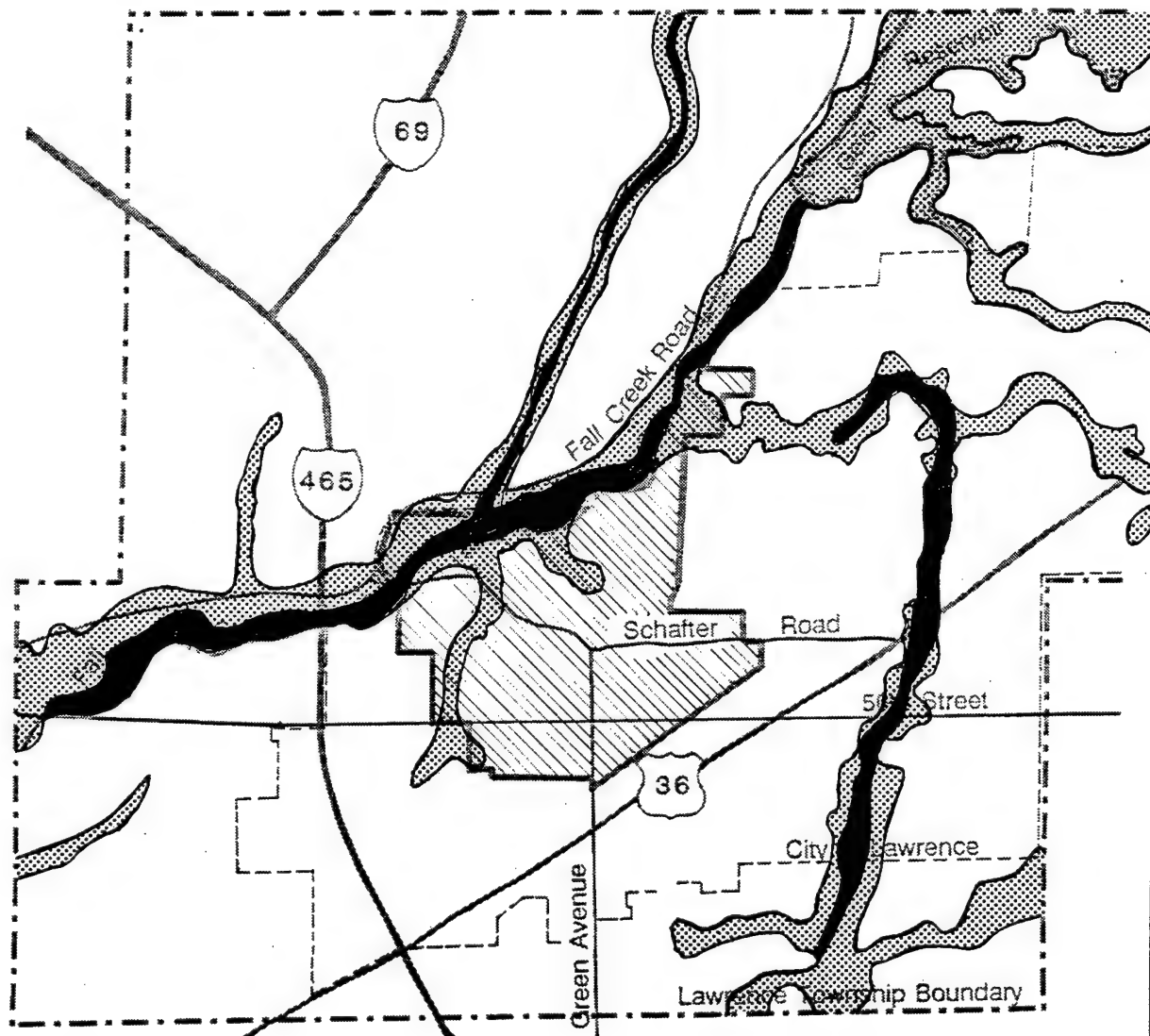
Wetlands. Draft wetland maps prepared by the U.S. Department of the Interior (1990), Fish and Wildlife Service, indicate a total of fifteen wetland areas are located on Fort Benjamin Harrison (See Figure 3H-4). No attempt was made to delineate jurisdictional wetlands using the Federal Manual for Identifying and Delineating Jurisdictional Wetlands.

The four wetland categories at Fort Benjamin Harrison are classified as Palustrine-Unconsolidated Bottom (PUBG) and (PUGBL), Palustrine-Forested (PFO1A), and Riverine-Lower Perennial-Unconsolidated Bottom (R2UBh).


H.3.5 **Biological Resources**

H.3.5.1 Wildlife Resources

Fort Benjamin Harrison has approximately 1,070 acres of woodland and provides habitat for



LEGEND

-  Fort Benjamin Harrison
-  Fall Creek
-  City of Lawrence, Indiana

-  Floodway
-  100 Year Floodplain



0 1000 2000 3000
scale in feet

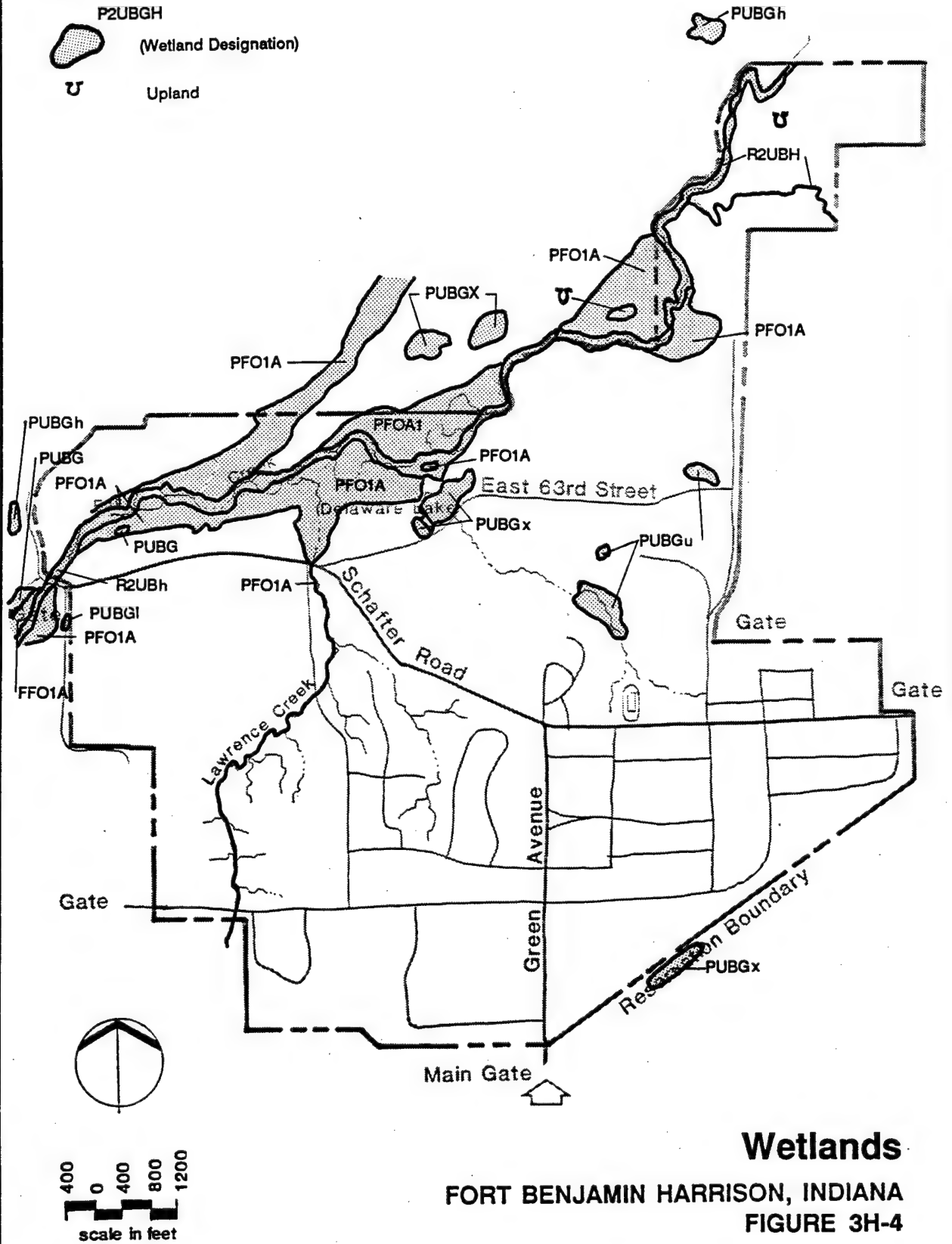
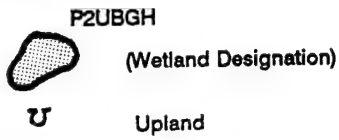
Floodway and Floodplain Areas Lawrence Township, Indiana

FORT BENJAMIN HARRISON, INDIANA

FIGURE 3H-3

Source: Department of Metropolitan Development, 1988 Lawrence Township Comprehensive Planning Study Data Inventory

LEGEND



Wetlands

FORT BENJAMIN HARRISON, INDIANA
FIGURE 3H-4

numerous wildlife species. Current management and protection policies and procedures for woodland areas have been beneficial to the wildlife populations. Personnel and their dependents at the installation are permitted to hunt in designated areas of the woodlands in the northwestern portion of the installation. Principal species hunted are cottontail rabbit, gray squirrel and ringneck pheasant. Other game mammals found on the installation include the fox squirrel and a few whitetail deer, bobwhite quail, and mourning dove. Other wildlife present on the installation include:

Small Mammals

opossum (Didelphis marsupialis)
raccoon (Procyon lotor)
ground hog (Marmota monax)
gray fox (Urocyon cinereoargenteus)
striped skunk (Mephitis mephitis)
chipmunk (Tamias striatus)
red fox (Rulpes fulva)
longtail weasel (Mustela frenata)

Reptiles and Amphibians

water snakes (Nerodia spp.)
aquatic turtles and frogs
toads (Bufo spp.)
box terrapin (Terrapene carolina)
garter snake (Thamnophis sirtalis)
black racer (Coluber constricta)
black rat snake (Elaphe obsoleta)
hognose snake (Heterodon Platyrhinos)

Of particular interest and concern are two great blue heron rookeries located along Fall and Indian Creeks in the extreme northeast corner of the installation. A 1987 Indiana Department of Natural Resources (DNR) survey indicated the presence of 14 nests in the rookery along Fall Creek and 108 nests in the rookery along Indian Creek. Each rookery is listed in the Indiana National Heritage Program.

Fish present in Delaware Lake, New Lake and Duck Pond include largemouth bass, bluegill, channel catfish, crappie, bulleads, trout and goldfish.

H.3.5.2 Plant Resources

Fort Benjamin Harrison is approximately forty percent covered by woodland. Red oak, green ash, sugar maple, American beech and cottonwood trees are the dominant species of most stands in the woodland areas. The woodlands are productive or potentially productive for forest products. Timber stands located in 36 identified areas vary in size from 9 to 79 acres, and are located to the west, north and northeast of the developed areas. In built up areas of the installation, the predominant vegetation cover is a mixture of lawn grasses, and numerous tree species cultivated as ornamental specimens or for shade. Also located on installation are an 18 hole golf course and a 27 acre black walnut plantation.

H.3.5.3 Threatened and Endangered Species

The National Register of Endangered and Threatened Species (50 CFR 17.11 and 17.12, January 1, 1989) was reviewed for the possible occurrence of listed species or their critical habitat within the project area. Table 3 H-1 lists endangered and threatened species (and their respective state and federal status) that are known to occur or potentially could occur in the Fort Benjamin Harrison area.

TABLE 3 H-1

ENDANGERED AND THREATENED SPECIES OF
FLORA AND FAUNA THAT COULD OCCUR IN THE
FORT BENJAMIN HARRISON AREA

Scientific Name	Common Name	Status	
		State	Federal
<u>Mammals</u>			
<u>Myotis sodalis</u>	Indiana bat	E	E
<u>Birds</u>			
<u>Dendroica kirtlandii</u>	Kirtland's warbler	E	E
<u>Falco peregrinus anatum</u>	American peregrine falcon	E	E
<u>Falco peregrinus tundrius</u>	artic peregrine falcon	E	E
<u>Pelecanus occidentalis</u>	brown pelican	-	E
<u>Plants</u>			
<u>Asclepias meadii</u>	Mead's milkweed	*	T
<u>Iliamna remota</u>	Kankakee Globe Mallow	E	-
<u>Psorales stipulata</u>	scurf pea (unnamed)	*	-

* extirpated

Source: U.S. Army Corps of Engineers, 1984a.

The Indiana bat (Myotis sodalis) is a federally listed endangered species that has been documented as occurring on Fort Benjamin Harrison. Several collections were made by the U.S. Fish and Wildlife Service in the vicinity of a maternity colony along Fall Creek in 1983 (letter from Mr. David Hudak dated March 22, 1984). Suitable foraging and roosting habitat on the installation therefore, is represented by the habitats along Fall Creek and other riparian areas.

In accordance with federal requirements, a program for the conservation and protection of endangered or threatened species has been incorporated into the Installation Natural Resources Plan for Fort Benjamin Harrison.

H.3.6 Cultural Resources

H.3.6.1 Native American Values

The earliest records indicate that the Shawnee, Illinois and Miami Indians were occupying central Indiana possibly as early as the 16th Century. Through the tumultuous years of the 17th, 18th and 19th centuries, many tribes resided or passed through Indiana including the Miami, Delaware, Shawnee, Kickapoo, Wea, Wyandot, and Piankashaw. By 1818, most of the groups had been pushed into northern Indiana or moved further west. Although most of the lands in the vicinity of the fort were relinquished by the Indians as a result of the Treaty of St. Marys in 1818, some Indians remained in or continued to visit the area into the early 1820's.

There is no evidence at this time which indicates that contemporary Native American groups ascribe cultural values specifically to Fort Benjamin Harrison.

H.3.6.2 Archaeological Resources

Previous archaeological surveys at Fort Benjamin Harrison have examined approximately 1100 acres, about 46% of the total federal holdings. These investigations have resulted in recording 34 archaeological sites consisting of 32 historic components and 6 prehistoric components.

Property types, date ranges, and management recommendations are provided in Table 3 H-2. Cultural affiliation is unknown for the 6 prehistoric components, and the historic components range in age from 1833 to 1947. Other useful cultural resource management and planning information is provided on Figure 3H-5. Survey and testing methods used in these investigations have included records and literature reviews, archival research, sample surveys, shovel test transects, and test excavation units.

A number of the planned realignment construction projects at Fort Benjamin Harrison (as discussed in Chapter 2) are located in areas that have not been previously surveyed for archaeological resources.

H.3.6.3 Architectural Resources





Fort Benjamin Harrison, officially established in 1903, was constructed between 1906 and 1908.

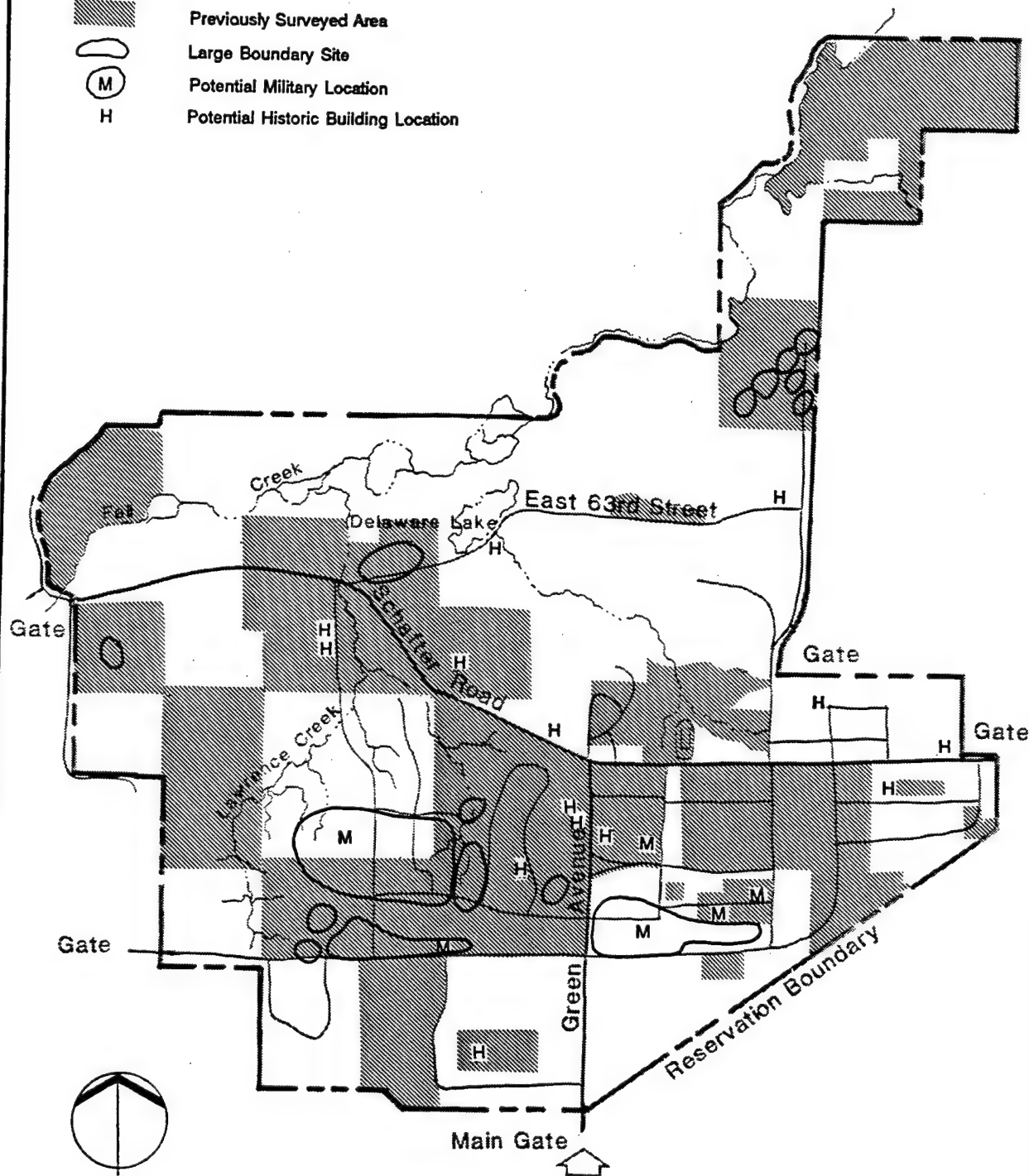
TABLE 3 H-2
ARCHAEOLOGICAL RESOURCES
FORT BENJAMIN HARRISON

Site Number	Historic/ Prehistoric	Dates of Temp. Period	Site Types	Recommendations
12MA249	Historic	1917-1918	WWI Trench	Assessment Testing
12MA288	Historic	1889-1904	Farmstead	Assessment Testing
12MA289	Historic	1889-1913	WWI Dump	Assessment Testing
12MA290	Historic	1890-1920	WWI Dump	Assessment Testing
12MA291	Historic	1889-1919	Farmstead	Assessment Testing
12MA292	Historic	1900	Farmstead	Assessment Testing
12MA293	Historic	1866-1911	Farmstead	Assessment Testing
12MA294	Historic	1946	WWII Found	Not Eligible
12MA295	Historic	1946-1947	WWII Dump/ Farmstead	Not Eligible
12MA296	Historic	1833-1941	Farmstead	Assessment Testing
12MA297	Historic	1900-1916	Historic Scatter	Assessment Testing
12MA298	Historic	1866, 1945	Farmstead	Assessment Testing
12MA299	Historic/ Prehistoric	1904-? Unknown	Trash Dump Scatter	Assessment Testing
12MA300	Prehistoric	Unknown	Camp	Assessment Testing
12MA301	Historic	1947	Trash Scatter	Not Eligible
12MA302	Historic	1917-1918	WWII Trenches	Not Eligible
12MA303	Historic	1866-1889	Farmstead	Assessment Testing
12MA304	Historic	1900	Isolated Find	Not Eligible
12MA305	Historic	1828-1922	Farmstead	Assessment Testing
12MA306	Historic/ Prehistoric	1828-1907 Unknown	Farmstead Camp	Assessment Testing
12MA307	Historic/ Prehistoric	1946 Unknown	Dump Camp	Not Eligible
12MA308	Historic	1866-1928	Farmstead	Assessment Testing
12MA311	Historic	1889-1907	Artifact Scatter Residence(?)	Assessment Testing
12MA312	Prehistoric	Unknown	Lithic Scatter	Assessment Testing
12MA313	Historic	1866-1907	Farmstead	Assessment Testing
12MA314	Historic/ Prehistoric	1889-1907 Unknown	Farmstead Lithic Scatter	Assessment Testing
12MA315	Historic	1866-1889	Farmstead	Assessment Testing
12MA316	Historic	1907	Farmstead	Assessment Testing
12MA317	Historic	1866-1907	Farmstead	Assessment Testing
12MA318	Historic	1908-?	WWI Structure	Not Eligible
12MA319	Historic	1908-?	Debris Scatter	Not Eligible
12MA320	Historic	1935-?	Dump	Not Eligible
12MA321	Historic/ Prehistoric	Unknown Unknown	Farmstead(?) Lithic Scatter	Assessment Testing
12MA322	Historic	1889-?	Farmstead	Not Eligible

Source: McGillem, 1989

LEGEND

-  Previously Surveyed Area
-  Large Boundary Site
-  Potential Military Location
-  Potential Historic Building Location



Cultural Resources

FORT BENJAMIN HARRISON, INDIANA

FIGURE 3H-5

Founded to garrison an infantry regiment, it served an important role in troop training in World War I, and as an induction and reception center in World War II. In 1951, the Army Finance Center was permanently located there. The installation has served increasingly as a major administrative center for the Army. Currently, it serves as Headquarters for the U.S. Army Soldier Support Center, a major command responsible for Army personnel service support.

A survey to identify Fort Benjamin Harrison properties eligible for inclusion in the National Register of Historic Places (NRHP) was conducted by the Indiana State Historic Preservation Officer (SHPO) in 1981. The historic architectural resources at the installation were further inventoried by four studies completed between 1986 and 1989. One hundred twenty-eight structures were identified as predating 1941 construction and were included in an inventory and evaluation of potentially historic buildings at Fort Benjamin Harrison (Myers and Ottesen, 1986). As a result of the survey, the nomination of a historic district to the National Register was recommended. The district contains 72 buildings or structures (See Figure 3H-6), including the remaining and intact original fort complex, parade ground and environs; and buildings constructed later, but in the same style, construction standards and materials as the original buildings. In conjunction with the survey, Historic American Building Survey forms and a National Register district nomination form were completed (Myers and Ottesen, 1986).




A study completed by McGillem et. al. (1989) includes a listing of 110 buildings which have been identified by all studies of historic architecture at Fort Benjamin Harrison as having potential historic significance. The specific location of all 110 potentially significant historic buildings, and specific building numbers are documented in the aforementioned McGillem study.

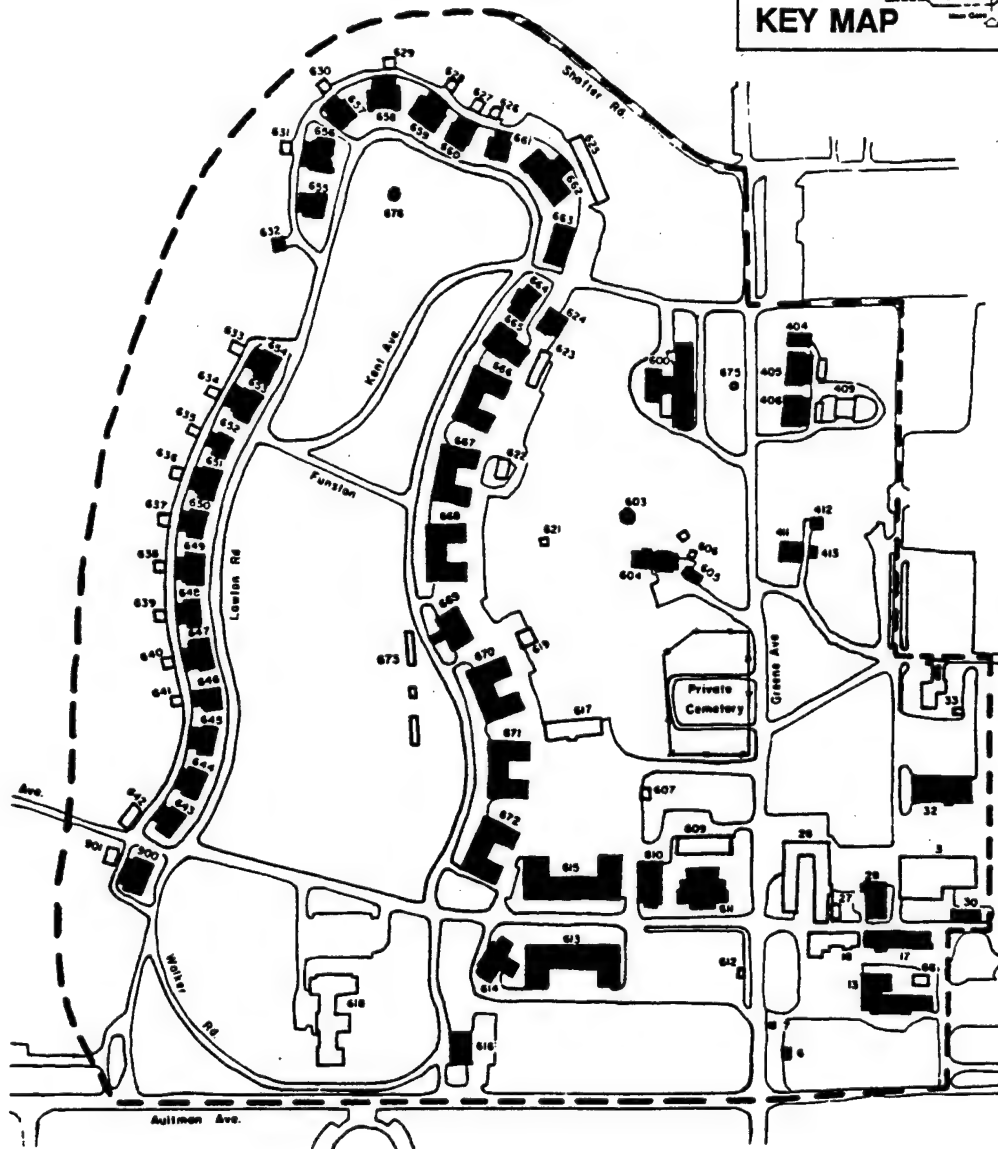
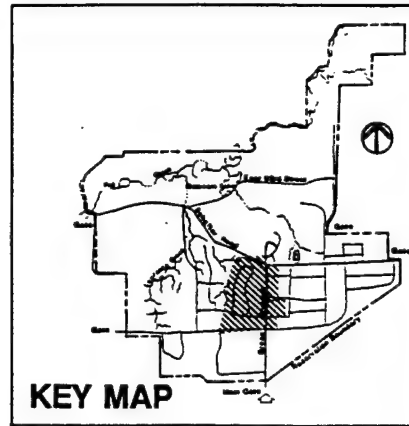
One structure, Bldg. No.616 (the former Interurban Train Depot of the original fort complex) is listed individually on the National Register of Historic Places. The specific buildings proposed for the historic district are identified in the "Archaeological Survey and Historic Building Inventory, Fort Benjamin Harrison, Indiana" (Myers and Ottesen, 1986) which is on file in the Directorate of Installation Support at Fort Benjamin Harrison.

The buildings within the proposed historic district were all classified as Category I or II buildings for management of their subject cultural resources. Cultural resources in these two categories are those which are considered to be of importance and which contribute to the national cultural heritage or visual beauty and interest of the installation and its environs. Buildings in Category I are considered to be the most significant. The proposed boundaries of the historic district coincide with those suggested by the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology in 1981 (Myers and Ottesen, 1986). As of the date of this writing, the Fort Benjamin Harrison historic district has not been listed on the National Register of Historic Places (Indiana SHPO 1989, telephone communication).

The buildings at Fort Benjamin Harrison were designed by architects in the Army Quartermaster Corps. The buildings included quarters for married and single officers and enlisted men, an administrative office building, a Provost Marshal Office and stockade, an Interurban Station, bakery and commissary facilities, warehouses, a complex of stables, gun sheds, warehouses and a blacksmith shop, a hospital, and an independent water and power system.

LEGEND

-  Historic Structure
-  Non-Historic Structure
-  Historic Preservation Plan Project Boundary



0 300 600 900
scale in feet

Historic Preservation Plan Historic Structure Plan

FORT BENJAMIN HARRISON, INDIANA

FIGURE 3H-6

H.3.7 Human Environment

H.3.7.1 Visual and Aesthetic Values

Fort Benjamin Harrison is visually self contained, set apart from its suburban residential and commercial surroundings by a green perimeter. Undeveloped space - hardwood forests on ridges, wetlands, and mowed fields dotted with trees - forms an extensive and varied framework for buildings and their exterior spaces. Buildings vary in age and architectural character, ranging from classical historic forms to buildings expressing contemporary technology.

H.3.7.2 Noise and Odor

Noise. Traffic, aircraft and firing ranges, are the major noise generators at Fort Benjamin Harrison. Each of these noise sources are discussed below.

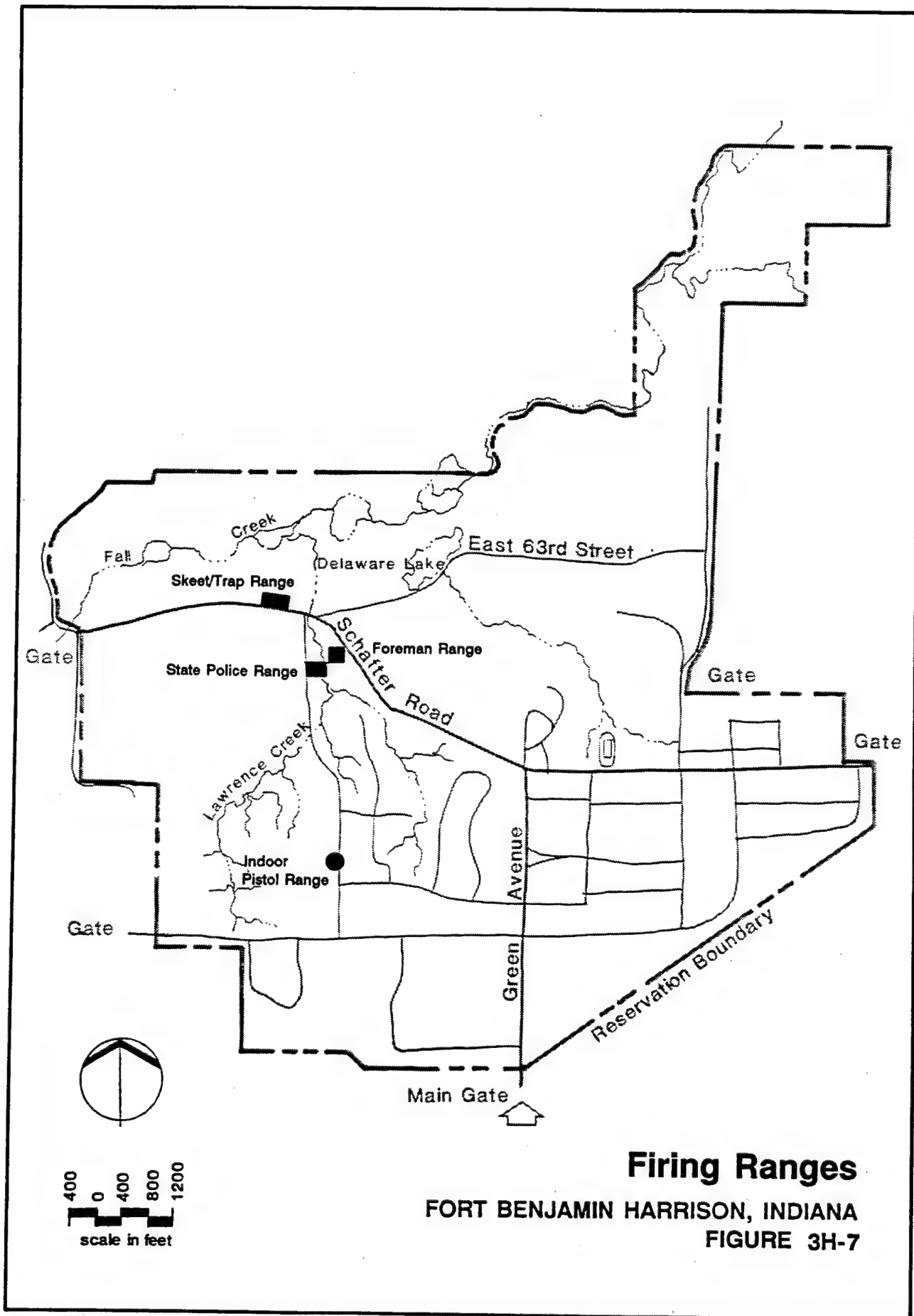
Traffic - Garbage trucks, buses, and automobiles represent a major source of noise at the installation. Noise from automobiles is generally at the highest level during morning and evening rush hours. A 1987 traffic study (MTMCTEA, 1987) indicated that Aultman and Green Avenues have the highest traffic volumes within the installation. This intersection also has the highest traffic volumes during the morning and evening peak periods. Intersections near post with the highest volumes are Pendleton Pike and Post Road and 56th Street and East Franklin Road.

Aircraft - There are two helipads at Fort Benjamin Harrison. One is located approximately 500 feet west of the Major General Emmett J. Bean Center (referred to as the Finance Center) and the second is located approximately 200 feet north of Hawley Army Community Hospital (Bldg. 300). There are eight helicopters and one other twin engine airplane belonging to the U.S. Army Reserve stationed at Brookside Airport. Helicopter support for the installation is accomplished through use of these helicopters.

Firing Ranges - There are currently four ranges in use at Fort Benjamin Harrison. (See Figure 3H-7). Two are authorized for firing handguns, rifles, and shotguns; one is authorized for pistols; and one is a skeet/trap range, primarily for shotgun firing.

Odor. Fort Benjamin Harrison does not have any major problem with odoriferous operations. However, the landfill is a source of odor generation. The landfill is located on the west side of the installation however, and therefore does not present any immediate problem of odor due to its remote location and generally satisfactory operation.

Another potential source of odor involves the tear-gas exercises held in Building 809, west of Glenn Road. These exercises are confined to inside the building, and outside effect is minimal under proper operation.



Firing Ranges

FORT BENJAMIN HARRISON, INDIANA
FIGURE 3H-7

Source: U.S. Army Corps of Engineers, 1984a.

H.3.7.3 Hazardous Material Sites

The two primary missions at Fort Benjamin Harrison, training and finance, are administrative in nature. Therefore, activities that result in hazardous waste generation are minimal. They include printing, motorpools, facility maintenance and repair, and photo developing. These areas are monitored closely in order to maintain compliance with regulatory requirements. The Defense Reutilization and Marketing Office (DRMO) stores hazardous waste in compliance with applicable regulations until the waste is collected and disposed of by a certified contractor. Specific categories of hazardous wastes and materials are discussed in the following subsections.

Pesticides and Insecticides. Pest control on this installation is carefully controlled. The integrated pest management program includes: cultural, sanitary, mechanical, maintenance and chemical methods. When chemicals are utilized, EPA registered pesticides are used in accordance with the manufacturers' labeling guidance. The pest controllers are certified by the Department of Defense. The pesticide applicators store maintenance equipment and mix chemicals at Bldg. 605. Only storage for immediate use is kept at this location. The Defense Reutilization and Marketing Office (DRMO) in Bldg. 125 is the storage location for bulk pesticides. This conforming storage facility serves as an interim storage location while awaiting construction of a new entomology facility.

Herbicides. Herbicides are used in controlling weed grasses and broad-leaved weeds in improved areas, on the golf course, along the railroad tracks and along fence rows. The herbicides, Roundup/Surflan mixture, is used for fencelines. No oil sterilants are used. Precautions in application and handling of herbicides and compliance with AR 420-76 were discussed previously. Herbicides and herbicide/fertilizer mix are stored in Bldg. 605 along with insecticides.

Fungicides, Fertilizers, and Others. Fungicides and dust palliatives are stored with pesticides in Bldg. 605. Fertilizers are stored in Bldg. 514.

Infectious Wastes. Infectious wastes from Hawley Army Community Hospital are disposed of in the pathological waste incinerator at the Veterans Hospital in Indianapolis. No infectious wastes are disposed of in the sanitary landfill at Fort Benjamin Harrison.

PCB Transformers. A survey of all potential PCB-containing transformers at Fort Benjamin Harrison was completed in 1980. All known PCB transformers have been removed or retro-fitted, thereby eliminating this potential hazard.

Asbestos. During the period from February, 1986 to May, 1988, a total of six asbestos survey reports were prepared addressing the existence of friable asbestos and/or asbestos containing materials at Fort Benjamin Harrison. Most of the buildings at the installation have been surveyed during this process. The above referenced reports contain survey findings and recommendations

for corrective actions to be taken. Subsequently, open end contracts for the on-going mitigation of asbestos-related problems are negotiated annually.

Explosives and Ammunition Storage. Explosives are stored on the installation in an Ammunition Supply Point located approximately 500 feet northeast of New Lake. This facility is maintained under current U.S. Army safety and security regulations.

Petroleum, Oils, and Lubricants Storage. There are 25 underground storage tanks and 10 above ground storage facilities containing petroleum, oils, and lubricants at Fort Benjamin Harrison. Eleven of the underground tanks are still in use and 14 are pending action on removal or repair.

H.3.7.4 Traffic and Transportation

External Access Routes. Fort Benjamin Harrison is located approximately 12 miles northeast of the center of Indianapolis and is only two miles from I-465, the belt freeway encircling the city. Two roads provide access to I-465: Aultman Avenue (56th Street) going west from the installation to I-465, and Greene Avenue (Post Road) going south from the main gate to Pendleton Pike (U.S. 36) and then southwest to I-465. Two secondary roads provide direct access to the installation; Shafter Road to the northwest and 59th Street to the east.

Traffic Volumes. Data from the Indianapolis-Marion County Division of Planning and from a 1987 Traffic Study of the installation (U. S. Army Corps of Engineers, 1987b) indicate that almost 36,000 vehicle trips access the installation on a 24-hour basis. These trips are distributed to the five major entry points as follows:

<u>Roadway</u>	<u>Daily Two-Way Volume</u>	<u>% of total</u>
Lee Road	1,493	4
Post Road (Green Avenue)	13,985	39
Shafter Road	4,000	11
56 th Street (Aultman Road)	13,065	37
59 th Street	<u>3,287</u>	<u>9</u>
Total	35,830	100

Major roadway volumes in the area around the installation are as follows:

<u>Roadway</u>	<u>Daily Two-Way Volume Range</u>
I-465	101,700 - 103,000
U.S. 36	17,700 - 43,200
Post Road	18,200
Franklin Road	11,200
Boy Scout Road	2,000
56 th Street	19,800 - 23,500

Interior Roads and Traffic Circulation Patterns. Existing roads on the installation are generally in good condition except for those having a concrete surface which are spalling and require resurfacing. The aforementioned traffic engineering study indicated that, in general, the roadway system on the installation was adequate. Some improvements were recommended to upgrade traffic controls and signals, minor intersection realignments and geometrics, and to modify the green signal cycle at one of the off-post intersections to alleviate afternoon peak hour traffic congestion.

Regional Roadway Capacities. The Indianapolis-Marion County Department of Metropolitan Development, Division of Planning has examined the major roadways in Lawrence Township to determine their existing capacity. Capacity is identified by Levels of Service (LOS). There are six categories of LOS ranging from A, free flow of traffic to F, a totally stopped condition. In urban areas, LOS C or D are acceptable and used to determine if a roadway is sufficiently carrying the amount of required traffic. The analysis completed by the Division of Planning indicates U.S. 36 (Pendleton Pike), is operating at LOS E or F east of the Green Avenue (Post Road) intersection, and all of I-465 in the township is operating at LOS E or F (See Figure 3H-8).

Other Transportation Modes.

Railroads - A comprehensive network of railroads serves the Indianapolis area providing complete rail shipping and Amtrak passenger service. There are no rail lines within the installation boundaries.

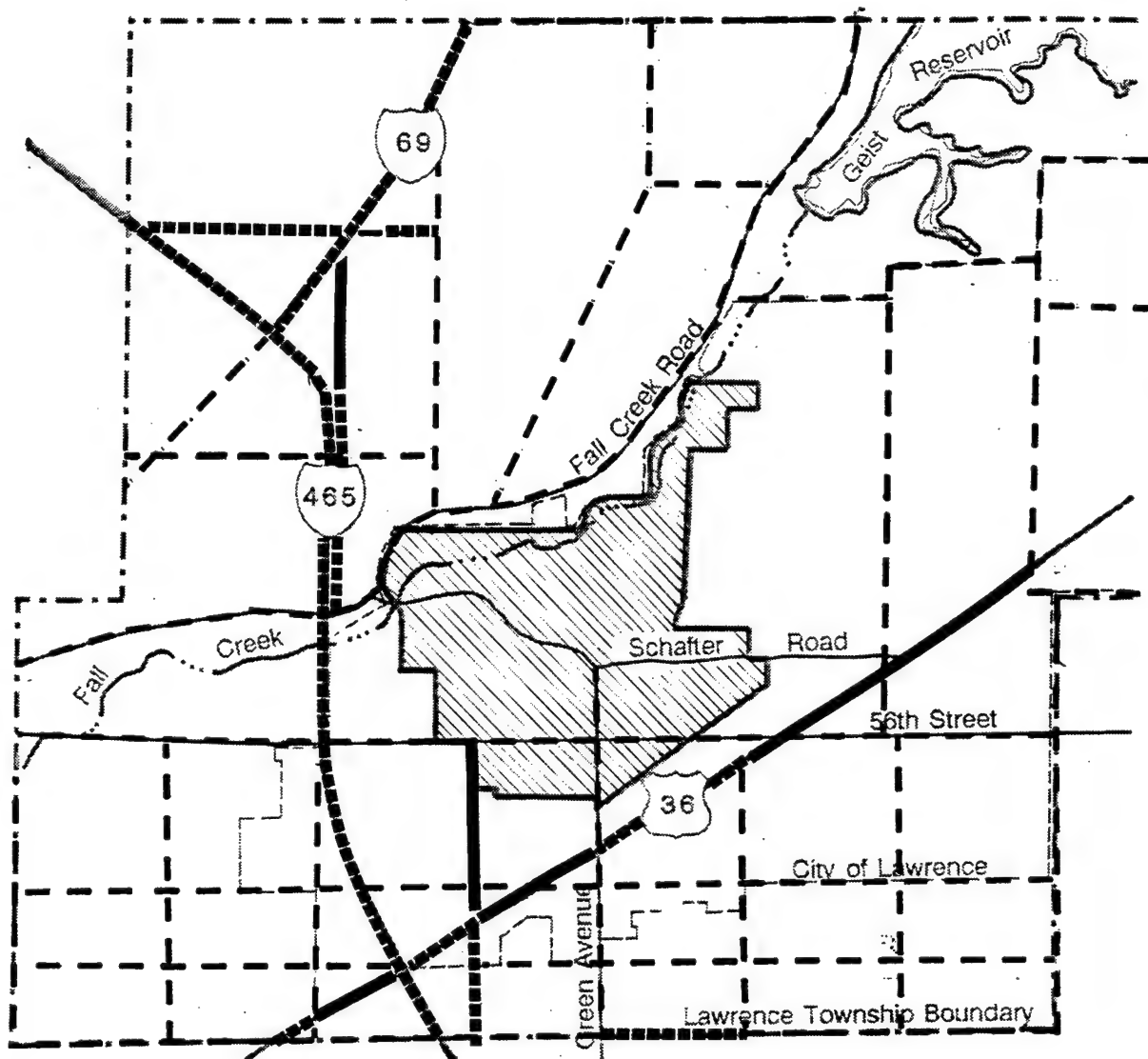
Airports - There is no fixed-wing airfield on the installation; however, there are two helipads: one serves the Major General Emmett J. Bean Center and the second the Hawley Army Community Hospital.

Public Transit - In addition to the coast-to-coast and regional bus systems serving Indianapolis, the Indianapolis Public Transportation Corporation (IPTC) provides local bus service. Two of IPTC routes (#2 and #4) directly serve the installation and the hospital.

H.3.7.5 Utility Systems

Fort Benjamin Harrison Water System. Water is supplied to the installation by three, ten-inch diameter wells located in the northern most portion of the installation. The wells vary in depth from 88 to 106 feet and have a combined maximum capacity of 2.2 MGD. The existing water demand is approximately 1.7 MGD indicating that the wells have a reserve capacity of approximately 0.5 MGD.

Distribution System - The potable water distribution system consists of a network of mains ranging in size from 1 to 16 inches in diameter. It has been assumed in previous reports, that



LEGEND



Fort Benjamin Harrison



Level of Service "A" or "B"



Level of Service "C" or "D"



Level of Service "E" or "F"



0 1000 2000 3000

scale in feet

Regional Roadway Capacities Lawrence Township, Indiana

FORT BENJAMIN HARRISON, INDIANA

FIGURE 3H-8

the limiting factor in the distribution system is the 4,150 GPM pumping capacity. An existing peak demand of 2,446 GPM was determined in the 1986 Mobilization Master Plan. The excess capacity of the distribution system is therefore 1704 GPM.

Water Treatment Capacity - The Fort Benjamin Harrison water treatment facility has a capacity of 2.16 MGD. The existing daily water demand is approximately 1.7 MGD, indicating an excess capacity of 0.46 MGD.

Lawrence Township Water Systems. Water supply systems in Lawrence Township include the City of Lawrence system and the Indianapolis Water Company system. Lawrence is presently supplied by water from six wells which yield a total of approximately 1,000 GPM. The system operates at approximately 90 percent of capacity, however a new well field is under construction which will supply an additional 1,000 - 1,200 GPM. This system will be partially operational by July of 1990 and become fully operational during the fall of 1990, according to company officials. When the facilities are completed, the City of Lawrence system will have an excess capacity of approximately 1,100 GPM or 1.6 MGD.

The Indianapolis Water Company uses both surface water and ground water. The company owns Morse Reservoir in Hamilton County and Geist Reservoir in Marion and Hamilton County. Water is released from Morse Reservoir into Cicero Creek, which flows into the West Fork White River, and is picked up downstream. Water from Geist Reservoir is similarly discharged into Fall Creek and picked up downstream. Wells are also used at the Fairwood Hills Station, Fall Creek Station, Riverside Station, and White River Station. Another well field located in Southern Marion County was placed in service in 1989. The total supply capability of the Indianapolis Water Company system is approximately 153 MGD and the current average daily use is approximately 120 MGD. An official of the company has indicated that new facilities and additional capacity will be provided as required by future increases in demand.

Sanitary Sewer System. Fort Benjamin Harrison maintains its own sewage collection system. Collector lines carry the waste to the Glenn Road lift station (located south of 63rd Street) where it is pumped to the Indianapolis Regional Sewer System (IRSS). All wastewater flows by gravity with the exception of one lift station that serves the Hawley Army Community Hospital area.

Since detailed information for the entire existing sewer collection system is unavailable, it is impossible to determine the exact effective population that the system will support without performing a detailed network analysis. Such an analysis has not been performed at this installation; however, an estimate can be made by evaluating the maximum capacities of the two 18-inch trunk lines leading into the IRSS lift station. The 1986 Mobilization Master Plan determined that the north-south trunk line had a capacity of 7.92 MGD and the east-west trunk line had a capacity of 4.86 MGD. Each of these trunk lines has considerable excess capacity. The maximum capacity of the IRSS lift station is 13 MGD which also greatly exceeds current peak flows. Wastewater treatment is provided to the installation by the Indianapolis Regional Sewer System (IRSS). A current agreement with the IRSS limits the installation flow to 2.5 MGD. The current peak monthly flow from Fort Benjamin Harrison is 18 million gallons per month or an average of approximately 0.60 MGD. Treatment specifications and effluent water quality meet or exceed all current Federal, State and local water quality standards.

Storm Drainage System. The storm drainage system at the installation is generally adequate. The storm water runoff from the Major General Emmett J. Bean Center parking lot and surrounding area flows south by drainage pipes to a drainage ditch, which then flows west and north to Lawrence Creek, which in turn flows north to Fall Creek. The storm water runoff from the western part of the developed area goes through a system of drainage pipes, swales, and ditches in a northwesterly direction also to Lawrence Creek. The storm water runoff from the eastern part of the developed area flows through a similar system to the northwest to New Lake, which flows into Delaware Lake, and ultimately to Fall Creek.

Heating and Fuel Systems. Heating fuels used at Fort Benjamin Harrison include natural gas and No. 2 Fuel Oil. There are currently 382 natural gas fired heating units at the installation. Seventy-seven buildings are heated by steam which is produced by the natural gas fired boilers at the central heating plant (Bldg. No. 2). Eight existing heating units at the installation are fuel oil fired.

Usage of fuel oil is decreasing as temporary buildings are demolished and permanent buildings are converted to the steam distribution system. Annual usage of natural gas and fuel oil is approximately 432 million cubic feet and 200,000 gallons, respectively. The installation has an uninterruptible service contract for natural gas and, if necessary, additional supply for expansion can be obtained.

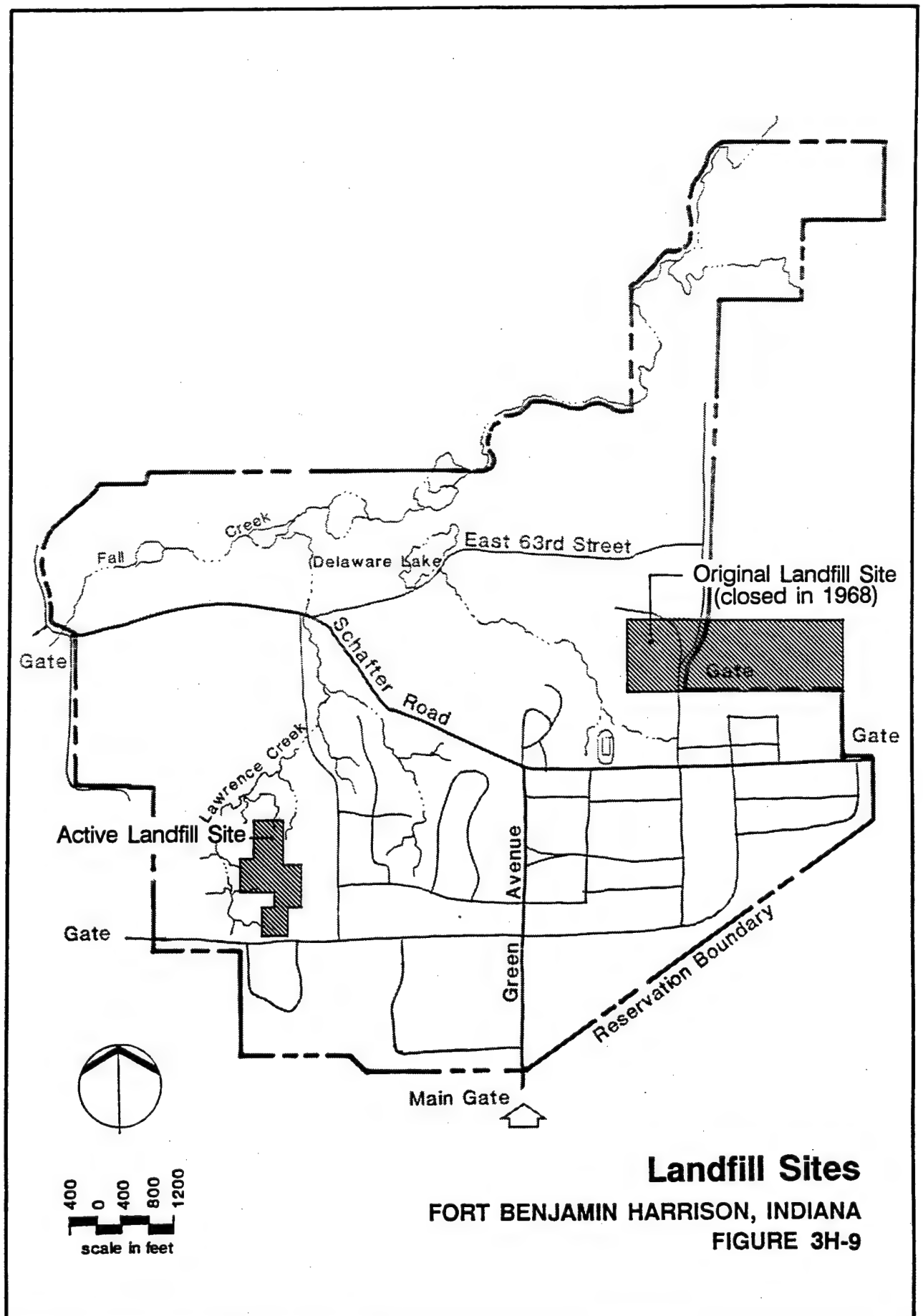
Electrical System. Electrical energy is supplied to Fort Benjamin Harrison through the facilities of the Indianapolis Power and Light Company. Backup network connections are provided through the facilities of Public Service Indiana, Indiana-Michigan Electric Company and others combined in a regional network grid support system.

The maximum amount of electricity available to Fort Benjamin Harrison has not been determined. Existing limitations within the system are operational and not physical. It is assumed that available electrical energy exceeds transmission line and substation capacity. In an emergency, Fort Benjamin Harrison could obtain electrical energy to the limits of transmission line and substation capacities (U.S. Army Corps of Engineers, 1986b).

Electrical energy delivered to Fort Benjamin Harrison is transformed at the government-owned substation located just off Post Road at the left side of the south entrance. The substation consists of two transformers rated at 10,000 KVA each with a backup transformer rated at 5,000 KVA. The transformers provide 13.2 KV to the installation for distribution (U.S. Army Corps of Engineers, 1986b). Three 1,500 KW diesel generators are located at the substation. These generators are normally used only in the summer for peak shaving, but could also be operated as emergency generators providing an extra 4,500KW to the installation.

H.3.7.6 Solid Waste Disposal

Only one of the two landfill sites at Fort Benjamin Harrison is currently in operation. The original landfill, located adjacent to the northern boundary of Hawley Army Community Hospital, was closed in 1968 (See Figure 3H-9). This landfill was in operation from 1940 until its closure in 1968. In 1974, a portion of the 80 acre landfill area was deeded to the City of Lawrence, Indiana



Source: U.S. Army Corps of Engineers 1984a and 1976.

and subsequently developed into a small city park. No information concerning groundwater conditions is available for the original landfill, however, due to known swampy conditions, the potential for groundwater contamination is presently under study.

The landfill site now in operation is approximately 20 acres in size and is located on the west side of the installation, approximately 1,200 feet west of Glenn Road (See Figure 3H-9). The site lies within a wooded area in the Lawrence Creek Watershed with young trees and underbrush around its perimeter. The trees and brush surrounding the area act as a visual and wind screen confining blowing materials to the fill site. In accordance with Section 6001, PL 94-580, Resource Conservation and Recovery Act (RCRA) of 1976 and Indiana regulations, landfill construction and operating permits were required. An operating permit was first issued on July 11, 1980, and has been renewed every two years.

The Indiana State Board of Health, Division of Sanitary Engineering, Solid Waste Management Section's monthly "Refuse Facility Inspection Report" on Fort Benjamin Harrison's Sanitary Landfill indicates that the existing landfill has had only minor leachate problems. There have been nine leachate violation records during the past nine years. Each was corrected immediately and the same problem was not reflected in the next monthly inspection reports. The record also includes one erosion violation on May 1989. There are six groundwater monitoring wells at the existing landfill site. Groundwater samples from these wells are tested on a quarterly basis and the results are submitted to the State of Indiana, Department of Environmental Management.

Approximately five acres of the existing landfill remains available for future use. The Fort Benjamin Harrison Directorate of Installation Support has estimated the remaining landfill life at two to three years, based on the present rate of disposal (35 tons/day).

Under a directive from the Louisville District Corps of Engineers, Military Branch, Installation Support Section, Entech, Inc. of Atlanta, Georgia has recently completed a comprehensive solid waste management plan for Fort Benjamin Harrison, Indiana. This plan develops cost effective, environmentally sound, and implementable solid waste disposal management alternatives which will meet the requirements of the Solid Waste Management Board for the State of Indiana. The basic solid waste management alternatives analyzed are:

1. Expand existing landfill.
2. Construct landfill on new site on post (evaluation of three proposed sites).
3. Transport waste to the Indianapolis Resource Recovery Facility for incineration.
4. Transport to off-post landfill utilizing government personnel and vehicles.

Based on these four basic alternatives, a total of 10 solid waste management options were considered in the report. On the basis of the report's life cycle cost analysis, contracting all refuse collection and transporting this waste to the new city incinerator is the most cost effective waste management alternative for Fort Benjamin Harrison. Under the selected course of action developed in this report, the solid waste operation at Fort Benjamin Harrison is to be contracted

to an off-post company for collection and transport to the Indianapolis Resource Recovery Facility for incineration.

H.3.8 Socioeconomic Characteristics

H.3.8.1 Introduction

This section describes pertinent socioeconomic aspects of Fort Benjamin Harrison and the surrounding environment at three levels of detail. The first level defines the current population assigned to Fort Benjamin Harrison, and existing land use patterns within the installation boundaries.

The second level involves Lawrence Township and the City of Lawrence which surround the installation on all sides. Lawrence Township and the City of Lawrence represent the immediate local area that will be affected by the planned realignment action. This adjacent area is discussed in the context of existing land use, zoning and community facilities.

The third level of detail involves a larger regional area which will be influenced by the planned realignment action. This area of regional influence was defined by the Institute for Water Resources (IWR) as part of their Phase II Socioeconomic Effects Analysis for Fort Benjamin Harrison (IWR 1989). Based on the IWR report, the area of regional influence has been defined to include Marion, Hamilton, Madison, Hancock and Johnson Counties as illustrated on Figure 3H-10. The socioeconomic environment of this five county region is described herein in the context of population, economic and housing trends.

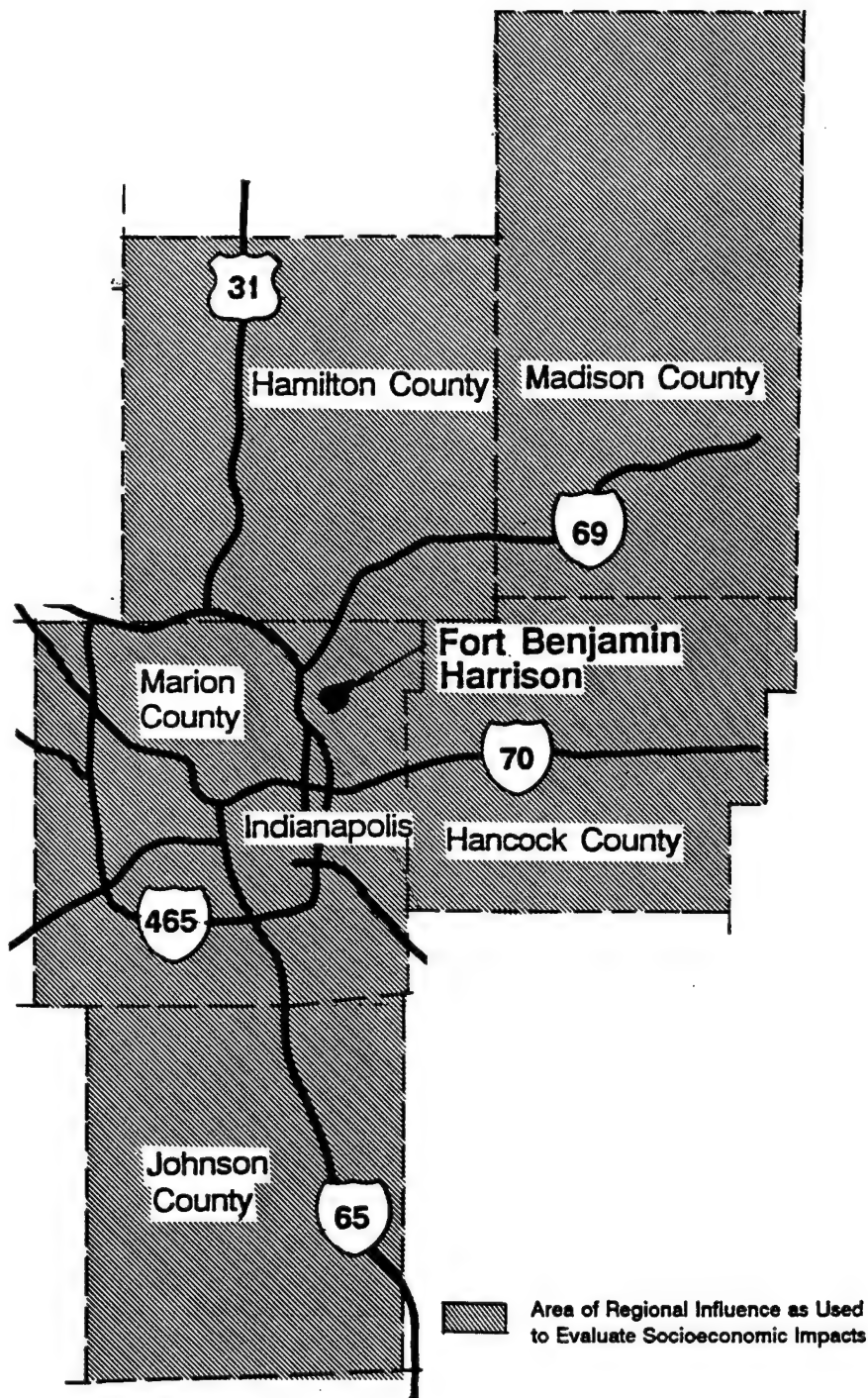
H.3.8.2 Fort Benjamin Harrison Population and Land Use.

The total number of personnel at Fort Benjamin Harrison (as of March 1990) includes 2,360 military, 4,750 civilian, and 2,750 student authorizations; for a total population of 9,860.

In addition, there are approximately 4,740 military dependents and 9,540 civilian dependents. Approximately 1,580 military personnel with 3,980 military dependents live off-post, and 780 military personnel with 760 military dependents live on-post.

Fort Benjamin Harrison includes approximately 2,500 acres in Lawrence Township. The land at the installation comprises 13 major types of use as shown in Table 3 H-3.

Figure 3H-11 presents the general land use pattern for the installation. The most obvious feature is the Major General Emmett J. Bean Center which dominates the south area of the installation covering 14 acres with 1.6 million square feet of floor space. The other land use feature of interest is the large amount of open space in both wilderness and recreation uses. In fact, 75 percent of the installation's property is either woodland/reforestation or open recreation. Only approximately 600 acres of the installation property, 24 percent, is used for some type of active purpose. A major part of the installation also provides medical care at Hawley Army Community Hospital and through on-post dental facilities.



0 5 10
scale in miles

Area of Regional Influence
FORT BENJAMIN HARRISON, INDIANA
FIGURE 3H-10

TABLE 3 H-3
FORT BENJAMIN HARRISON, INDIANA
EXISTING LAND USE

<u>Land Use Function or Activity</u>	<u>Approximate Acres</u>	<u>Percent of Total Area</u>
Administration	119	5
Unaccompanied Officer Quarters	43	2
Community and Religious Facilities	46	2
Family Housing (Officer & NCO)	63	3
Medical	2	1
Recreation, Open	772	31
Industrial & Storage	80	3
Troop Housing	73	3
Service	57	2
Mobile Home Court	20	1
Woodland & Reforestation (including training & parade ground)	1,134	44
Major Roads & Streets	53	2
Sanitary Landfill	<u>30</u>	<u>1</u>
Total	2,492	100.00

Source: U.S. Army Corps of Engineers, 1989b.

H.3.8.3 Lawrence Township/City of Lawrence Land Use and Zoning

Fort Benjamin Harrison is located entirely within the City of Lawrence which is within Lawrence Township. Land uses surrounding the installation range from very low density (1-2 dwelling units per acre) residential, to parks and general light industry. The land uses abutting the installation directly are generally very low density residential to the east, north, and west with industrial, parkland and higher density residential to the south. While commercial use does not directly border installation property, U.S. 36 (Pendleton Pike) is lined with a mixture of commercial uses ranging from small commercial centers to auto dealers to gas stations and fast food restaurants. Both future plans and zoning are administered on a countywide basis. The land use plan for the township is presently being updated, but the 1984 comprehensive plan indicates a continuation of the same land use patterns with the installation surrounded by residential properties of varying densities, parkland, and industrial use to the east along the Conrail railroad.

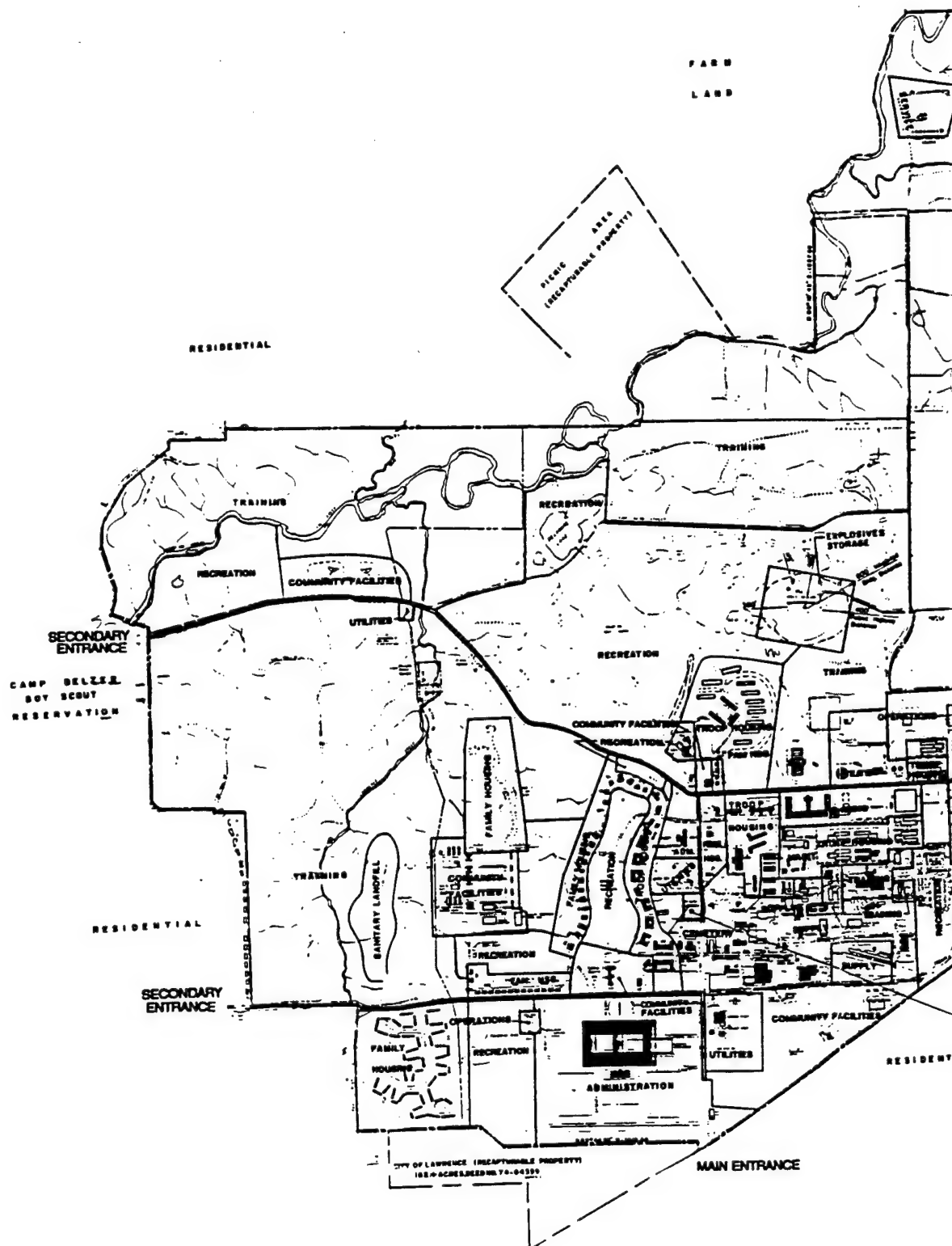
Zoning of both the City of Lawrence and the unincorporated Lawrence Township reflects the land use with adjacent zoning ranging from agricultural to parks to special uses for churches, charitable/philanthropic organizations and schools. Figure 3H-12 presents the zoning of land immediately adjacent to the installation.

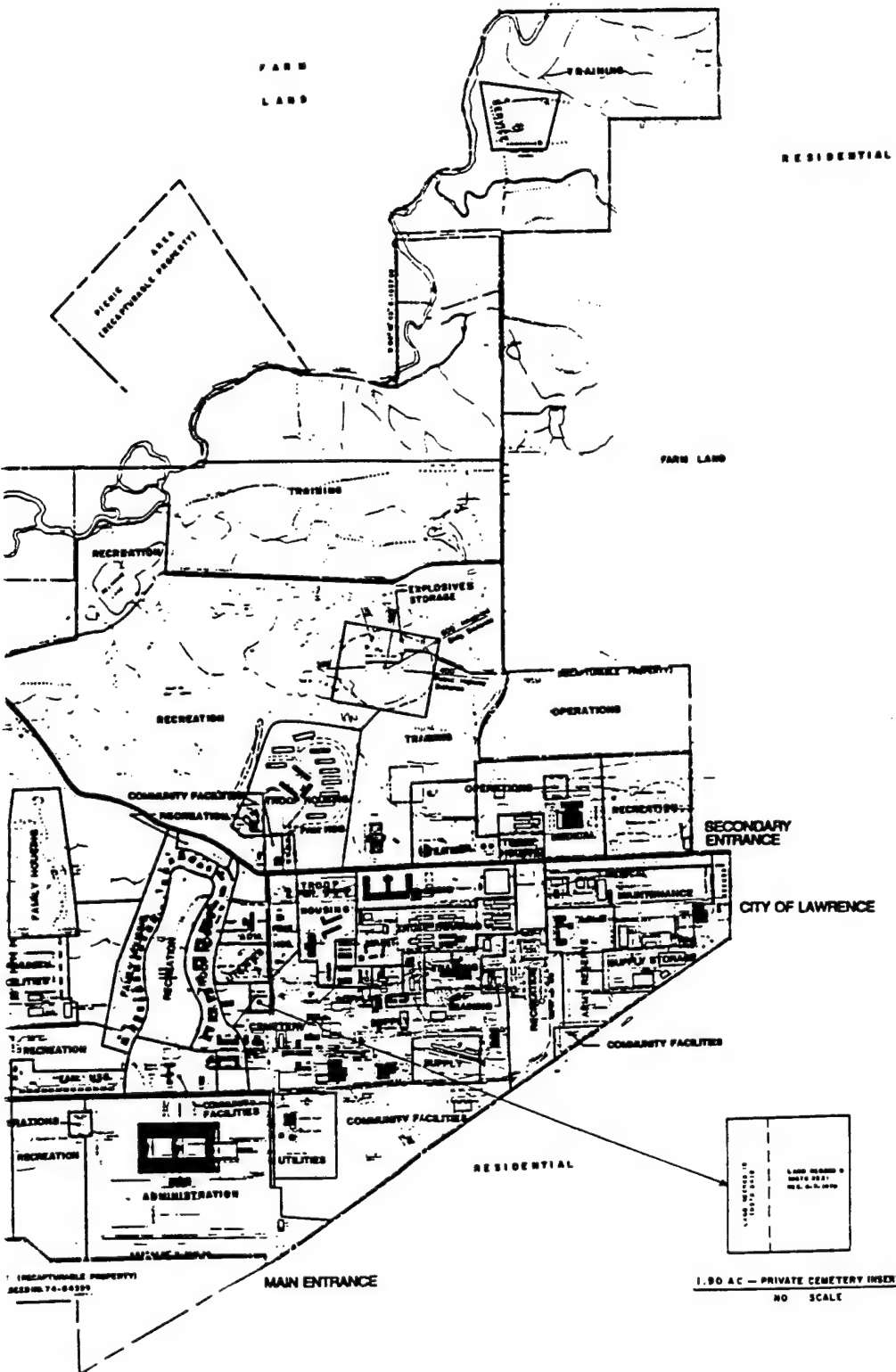
H.3.8.4 Adjacent Community Facilities

Fort Benjamin Harrison is located in a major metropolitan area, and has access to a wide variety of off-post community facilities.

In addition to the ten-chair clinic and out-patient, and triage facilities at Fort Benjamin Harrison's Hawley Army Community Hospital, the Indianapolis area also has a wide range of health-related organizations and resources geared to local and statewide services. These include a number of acute general hospitals and special hospitals for psychiatric, tubercular and other specific patient needs; clinics; nursing homes; welfare agencies; laboratories; pharmaceutical manufacturing and research; administrative offices of state and local health agencies; and schools for the blind, deaf, and other handicapped persons.

Two public school districts are contained in Lawrence Township: a portion of the Indianapolis Public School (IPS) District and the Metropolitan School District (MSD) of Lawrence Township. The IPS District extends northward into Lawrence Township to 56th Street, west of I-465, and eastward past Mitthoeffer Road. Five elementary schools and one high school serve this area. A total of 11 schools (two high schools, two middle schools, and seven elementary schools) are currently operating within the MSD of Lawrence Township, and another elementary school is under construction. Also, four private schools are located within Lawrence Township.





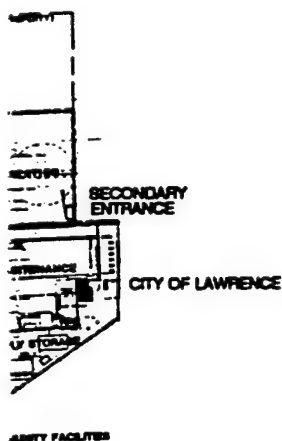
LEGEN
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FORT BENJAMIN H



RESIDENTIAL

FARM LAND










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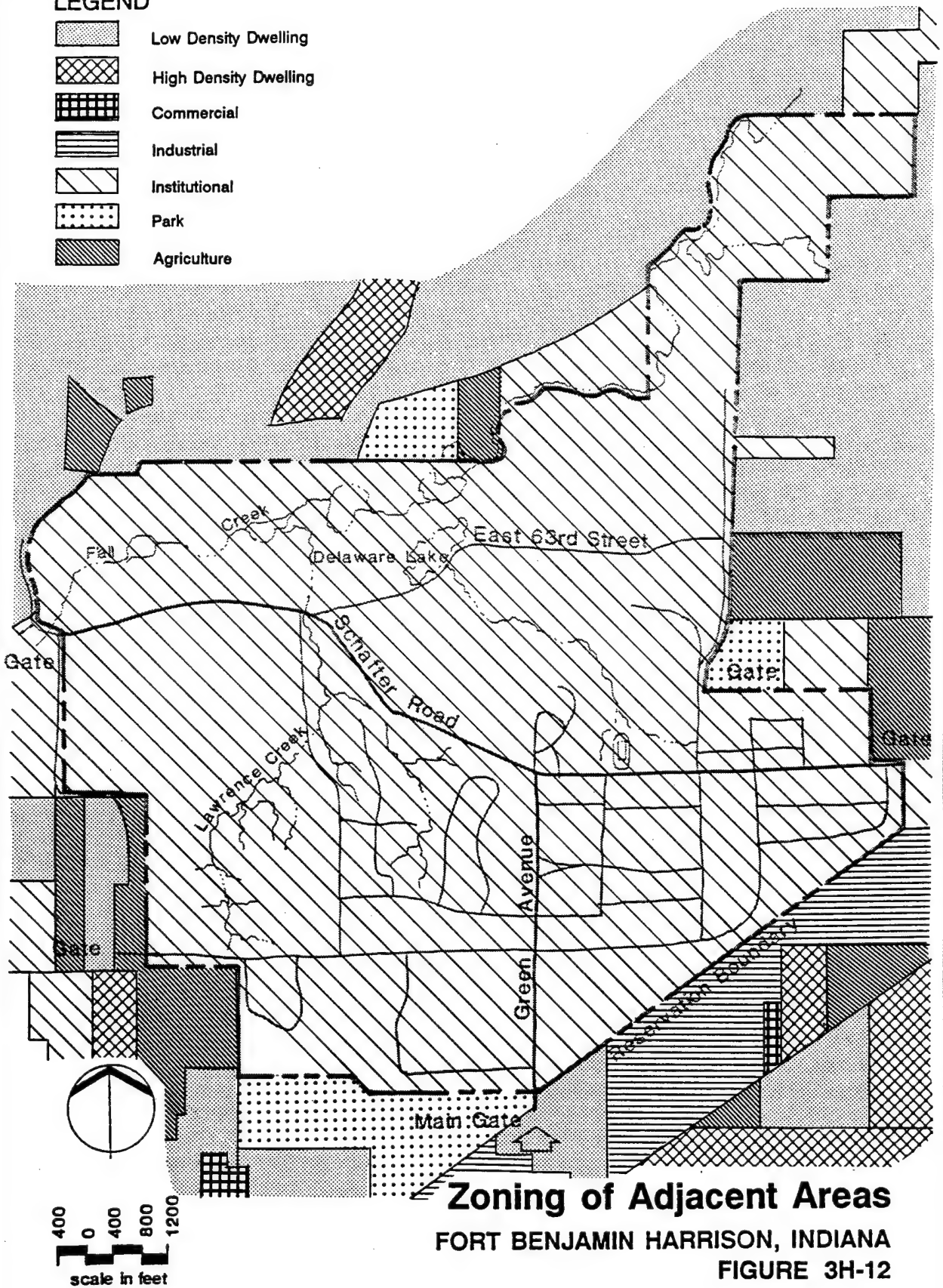
Land Use Categories

- Family Housing
- Troop Housing
- Administration
- Community Facilities
- Medical
- Service
- Cemetery
- Training
- Recreation
- Maintenance
- Supply Storage
- Army Reserve
- Utilities
- Sanitary Landfill
- Operations
- Explosives Storage

Existing Land Use
FORT BENJAMIN HARRISON, INDIANA
FIGURE 3H-11

LEGEND

-  Low Density Dwelling
-  High Density Dwelling
-  Commercial
-  Industrial
-  Institutional
-  Park
-  Agriculture



Zoning of Adjacent Areas
FORT BENJAMIN HARRISON, INDIANA
FIGURE 3H-12

Overcrowding has begun to occur within the Lawrence Township MSD elementary schools. Anticipating an enrollment increase in the lower grade levels, school officials decided to construct a new elementary school. That school was scheduled to open in the fall of 1989. Should enrollment increases continue at the present rate and distribution (with respect to the school-aged population), a new middle school may be warranted within the next five years. The two Lawrence Township high schools appear to be adequate for the long term.

Five IPS System elementary schools are located within Lawrence Township. Two of these schools, numbers 92 and 103, are very near or at their capacities. The other three have ample reserve capacity remaining to accommodate any increases in enrollment. Arlington High Schools current enrollment is also significantly below capacity.

Military personnel assigned to Fort Benjamin Harrison send their children to the local area schools. An estimated 2,400 dependents of Fort Benjamin Harrison military personnel attend area schools.

Lawrence Township public safety services are comprised of fire protection services, police protection services, and emergency medical services. Fire protection services are provided by several different departments cooperating throughout the township through either specific contracts or mutual aid agreements. The unincorporated areas of the township are serviced by the Lawrence Township Fire Department, which maintains a professional fire fighting staff and is assisted by the Castleton Volunteer Fire Corporation.

The City of Lawrence maintains three stations within Lawrence Township and has plans for design and construction of a fourth station. Fire protection service is provided within the incorporated limits of the City of Lawrence, excluding Fort Benjamin Harrison, which provides its own protection. The city is also under contract with the Township to provide services in some specific township areas. Emergency medical services are also provided by all three stations, including ambulance and rescue service.

Police protection services basically follow the same jurisdictional lines as fire protection. The Indianapolis Police Department (IPD) is responsible for the Indianapolis city area, the Marion County Sheriff's Department covers the unincorporated portions of the Township, and the Lawrence City Police Department covers the incorporated Lawrence city limits (again excluding Fort Benjamin Harrison, which provides its own protection).

Lawrence Township contains 14 public parks with a total of approximately 575 acres. Five of these parks are operated by the City of Indianapolis, eight by the City of Lawrence, and one is a public nature preserve jointly maintained by the City of Indianapolis and the State of Indiana. Park areas directly adjacent to Fort Benjamin Harrison include Lawrence Community Park and Charney Neighborhood Park to the south, Lee Road Neighborhood Park to the east, and Fall Creek Neighborhood Park to the north.

H.3.8.5 Regional Population

Based on information provided by the Institute for Water Resources, (IWR 1989) Phase II Socioeconomic Effects Analysis, the population of the area of regional influence grew by over

40,000 persons from 1980 to 1987. The 1989 population for the region has been estimated by IWR to be 1.17 million and is projected to increase to 1.21 million by 1994, an estimated increase of over 40,000 persons over the five year period 1989 to 1994. The following shows that this steady growth of population is anticipated to continue into 1994.

Population (millions)				
Region	1980	1987	(Estimated) 1989	(Projected) 1994
Marion, Hamilton, Madison, Hancock and Johnson Counties	1.11	1.15	1.17	1.21

The regional households total, based on census information, grew from 340,785 households in 1970 to 402,157 households in 1980, a total increase of over 61,000 households in the region. The IWR report, mentioned above, stated the 1989 estimated number of households was 458,874 and that the 1994 projected number of households would grow to 495,653 households. The steady increase in households of nearly 57,000 from 1980 to 1989 is expected to continue through 1994 as shown below.

Households				
Region	1970	1980	(Estimated) 1989	(Projected) 1994
Marion, Hamilton, Madison Hancock and Johnson Counties	340,785	402,157	458,874	495,653

H.3.8.6 Regional Economy and Housing

The economic analysis provided by the Institute for Water Resources (IWR, 1989) socioeconomic report on Fort Benjamin Harrison indicates that total employment for the region in 1980 was 624,213, and 713,982 in 1987. This represents a total increase of more than 89,000. This steady rise in employment for the region has lead to a current regional unemployment rate of 4.8 percent. An analysis of average annual data indicates that the 1988 civilian labor force was 624,131. In 1989 the largest employing industrial sector was Services which provided jobs for 25.4 percent of the total employed labor. Fort Benjamin Harrison employs approximately 1.4 percent of the total civilian labor force in the region. The 1989 estimated regional per capita personal income is \$16,389. Total regional personal income for 1987 was estimated to be \$18,085 million.

The 1980 Census shows a regional total of 433,677 housing units and a regional housing vacancy rate of 7.3 percent. Housing starts in the region have been at record highs. Residential growth has been steady and is projected to continue with the dispersing of population from the Central Indianapolis area to the outlying areas. This steady growth has provided the housing

market with a variety of new and existing single family and apartment units. Based on currently available data from Fort Benjamin Harrison, approximately 1,580 military and 3,980 military dependents live off-post. These off-post military personnel and dependents, on an average, pay \$600 to \$825 per month for rental units or own homes with an average fair market value ranging from \$70,000 to \$105,000.

SECTION M - FORT McCOY AFFECTED ENVIRONMENT

M.3.1 Introduction

As discussed in Chapter 2, the proposed action at Fort McCoy will consist of a minor realignment of personnel and the construction of one new building and associated parking facilities. The following Fort McCoy affected environment sections will therefore only provide a very general description of installation resources, and the area of proposed construction located near J Street and Tarr Creek on the south side of the cantonment area (See Figure 2-4).

M.3.2 Mission/Functional Activities

Fort McCoy's is under the command and control of Forces Command. The installation's primary mission is to provide support for Reserve Component and Active Component units assigned to the installation for training; tenant units assigned to the installation; and support Reserve Component and Active Component units within specified geographic areas of responsibility within the Upper Midwest.

The Mission Statement identifies the following responsibilities:

- Organizes and sustains installation activities.
- Aligns planning and resource development towards achieving Forces Command and 4th U.S. Army goals and objectives.
- Trains and equips all garrison activities and individuals to accomplish functional requirements to the standards established in the Forces Command and Fort McCoy Standard Installation Management System.
- Provides administrative, logistical, financial, engineering, morale and welfare, and training support (facilities and services) to permanent and transient assigned units and individuals; dependents and retirees.
- Provides services and facilities within specified off-post geographic areas and locations in support of assigned off-post units, military personnel, dependents and retirees.
- Plans for and coordinates operations in support of civil authorities in domestic emergencies; administers an effective public relations program; and maintains liaison with state, civic, and private organizations.

A list of the major units at Fort McCoy is provided below:

US Army Information Systems Command (USAIC)
US Army Readiness Group (USARG)

US Army Reserve Readiness Training Center (ARRTC)
Equipment Concentration Site (ECS)
Defense Logistics Agency, Defense Reutilization and Marketing Office (DRMO)
Mobilization and training Equipment Site (MATES)
US Medical Department Activity (MEDDAC)
Detachment 1/377th Maintenance Company, FWD, DS.
U.S. Army Criminal Investigation Command
Facilities Engineer Area Support Center (ASC)
88th Ordnance Detachment
TMDE Support Operations

M.3.3 Physical Environment

M.3.3.1 Climate

The climate of Fort M^cCoy is highly variable, with temperatures ranging from a minimum of -50°F to a maximum of 90°F. The average temperature is 46°F. The average annual snowfall is 43 inches.

M.3.3.2 Topography, Soils, and Geology

Realignment construction will occur in an area classified as low plains. The slopes in this area range from zero to eight percent.

The soils are classified primarily as slightly erodible alluvial deposit sands derived by erosion of Cambrian sandstone.

M.3.3.3 Air Resources

Air pollution sources at Fort M^cCoy can be described under four broad categories: heating/combustion of fossil fuel, vehicle emissions, fugitive dust sources, and miscellaneous generators such as artillery firing, demolitions, and smoke from training activities. Previous reports and environmental studies have indicated that Fort M^cCoy is in compliance with all applicable air quality standards.

M.3.4 Water Resources

M.3.4.1 Groundwater

Fort M^cCoy groundwater sources include the aquifers of both the highly permeable alluvial deposits of sand and gravel at depths up to 200 feet, and sandstone bedrock with depths from 25 to 1100 feet. All wells supplying potable water to the installation extract water from the Cambrian sandstones and yield 175 to 475 GPM. The groundwater quality is generally good to very good and usable for most purposes including domestic use. Minimal treatment is necessary

prior to use. Treated water at both the North Post and South Post has complied with primary and secondary drinking water standards according to the most recent water quality results (U.S. Army Corps of Engineers, 1989a).

M.3.4.2 Surface Waters, Floodplains, and Wetlands.

Fort M^cCoy occupies two major drainage basins. The northernmost 12,090 acres of the installation are in the Black River basin while the remaining 47,572 acres are in the LaCrosse River basin. The LaCrosse River, flowing in a southwesterly direction and eventually into the Mississippi River, is the largest stream on the installation and together with its tributaries, provides stormwater drainage for most of Fort M^cCoy.

Surface water, totaling approximately 200 surface acres of lakes and impoundments and 60 acres of streams, consists of less than one percent of the total installation area. The only surface water resource in the immediate area of the proposed realignment construction is Tarr Creek which is located just south of the Triad area.

Because stream flows through the installation are not excessive, flooding rarely occurs at Fort M^cCoy, although low-lying areas in the vicinity of streams, including Tarr Creek, may be flood-prone during periods of maximum runoff from late March through mid-April.

Wetlands at Fort M^cCoy comprise a total of 4,800 acres and consist primarily of perennial swamps varying in size. None of these wetlands are located within the construction area vicinity.

M.3.5 Biological Resources

M.3.5.1 Wildlife and Plant Resources

Of the 59,779 acre area of Fort M^cCoy, approximately 57,000 acres are considered suitable as wildlife habitat, the majority of which is forested. Over 7,600 acres of the north Impact Area together with over 7,200 acres closed for hunting provide approximately 15,000 acres of wildlife refuge. This wildlife resource is quite large and diverse. A 1983 inventory of Fort M^cCoy fauna documented 24 species of mammals, 19 game and furbearing species, 27 game and nongame fish species, and 23 amphibian and reptile species on the installation. Also 153 game and nongame birds were documented on or near Fort M^cCoy (U.S. Army Corps of Engineers, 1989a).

The present vegetation composition of Fort M^cCoy consists of three major types: forest, grassland, and wetlands. Approximately 75 percent of the installation area consists of forest; three-fourths of this forest area is deciduous and the rest evergreen. A diverse mix of native prairie grasses comprise 15 percent of Fort M^cCoy and less than two percent consists of wetlands. Much of the space within the immediate cantonment area, including the area proposed or realignment construction, is classified as open which accounts for the remaining eight percent of the Fort M^cCoy land area (U.S. Army Corps of Engineers, 1989a).

M.3.5.2 Threatened and Endangered Species

The National Register of Endangered and Threatened Species was reviewed to determine the potential occurrence of any federally listed species or their habitats at Fort M^cCoy. No federally threatened or endangered wildlife species or their designated critical habitats are known to currently inhabit Fort M^cCoy, however the bald eagle and peregrine falcon are classified as federally threatened or endangered respectively and appear at Fort M^cCoy during migration periods.

The list of Wisconsin endangered, threatened and watch species consists of 118 species of mammals, birds, reptiles, amphibians, fishes and mollusks. Of these, six endangered, five threatened, and 31 watch species are known to inhabit or have been observed at Fort M^cCoy.

A 1981 study of Fort M^cCoy plant communities which could possibly contain endangered and threatened flora collected and identified 647 plant species. These species include bog bluegrass (Poa paludigena) and fame flower (Talinum rugosperum), both of which are under review for inclusion on the Federally Endangered Species List. As of January 1987, one state threatened species, rough white lettuce, (Prenanthes aspera) has been confirmed to exist at Fort M^cCoy. Two state threatened species, Pale false foxglove (Gerardia skinneriana) and Sand violet (Viola fimbriolata) possibly exist at Fort M^cCoy and thirty additional state watch plant species have either been confirmed or can possibly be found at Fort M^cCoy. No other federally threatened or endangered plant has been identified or is thought to appear at Fort M^cCoy, but two of the above state classified species have been proposed for Federal classification (U.S. Army Corps of Engineers, 1989a).

Two riparian communities were determined in 1973 to be eligible for designation as State Scientific Areas due to their pristine condition. These areas are located along Silver Creek and Clear Creek. Neither of the areas are near the proposed realignment construction area.

An area along Clear Creek and one along Silver Creek have been formally designated as State Natural Areas. The Wisconsin Department of Natural Resources and Fort M^cCoy Commander signed the agreement designating the areas on 11 April 1990.

M.3.6 **Cultural Resources**

Although limited archeological survey work has been conducted throughout the installation, 40 known archeological sites have been identified within the boundaries. These sites have been recognized as remnants of the Woodland Indian culture and also more recent periods. The State Historical Society of Wisconsin has recorded each site. None of these sites are located within the limits of the realignment construction area. The planned realignment construction area has not been surveyed for potential archaeological resources.

Fort M^cCoy is in the process of developing a Historic Preservation Program which consists of an inventory and evaluation of historic properties, nomination of properties eligible for the National Register, preservation, conservation, education and adaptive use. Currently, no building, site or property of Fort M^cCoy is listed on the National Register of Historic Places.

M.3.7 Human Environment

M.3.7.1 Visual and Aesthetic Values

The cantonment area consists primarily of WWII vintage structures which are designated as temporary buildings. The visual quality of this area is relatively low in terms of architectural interest. The remainder of the installation however, is primarily a natural setting which provides a pleasing visual atmosphere for outdoor activities.

M.3.7.2 Noise and Odor

Noise. Major noise generators at Fort M^cCoy include training activities, airfield operations, firing ranges, and vehicular traffic.

A Draft Installation Compatible Use Zone Report prepared in 1987 indicated that there are no significant land use incompatibilities in the areas surrounding Fort M^cCoy. However, there are areas in which the potential exists for limitations upon the ability of Fort M^cCoy to fulfill its training mission. Recommendations to preclude such conflicts were included in the report, a copy of which is on file at the Omaha District office of the U.S. Army Corps of Engineers.

Odor. Fort McCoy has a total of eight closed landfills. All of these landfill sites have the potential to produce landfill gas related odor. Numerous coal-fired heating units also provide a potential source of odor during winter months.

M.3.7.3 Hazardous Material Sites

Explosives Storage and Handling. The current ammunition storage area at Fort M^cCoy is located 1500 feet south of the Main Gate and Highway 21 along south J Street. The active ammunition storage area occupies 80 acres and includes eight ready magazines, seven storage igloos, four open storage areas, a small administration building, and an inert storehouse.

Hazardous Waste Materials. The hazardous waste storage facility at Fort M^cCoy (Bldg. 2118) is operated by the Sparta Defense Reutilization and Marketing Office (DRMO). Storage of hazardous waste/material at the DRMO facility is restricted to the containers stored in Bldg. 2118 and the adjacent vehicle battery storage pile. The DRMO does not utilize tanks, surface impoundments, landfills or incinerators to hold or treat hazardous waste. Additionally, no treatment of stored hazardous waste occurs at Fort M^cCoy. Rather, all containers of stored hazardous waste at the DRMO are removed by a contracted disposal firm within 90 days of receipt.

Additional hazardous material storage facilities are located throughout Fort M^cCoy: the pesticide storage facility (Bldg. 2119), the DOL supply storage facility (Bldg. 2217), the DOL paint and paint thinner storage facility (Bldg. 2159) and miscellaneous hazardous material storage areas are at each maintenance facility.

With the exception of the Asbestos Abatement Plan, no chemical or physical processes exist at Fort M^cCoy which might produce significant amounts of toxicants or require permits or abatement measures.

Radioactive Materials. No permanent disposal of radioactive materials occurs at Fort M^cCoy. Presently, radioactive material is stored in steel drums with thick plastic liners in a secured, ventilated, metal lined room within Bldg. 2139.

Fort McCoy has been authorized by the Armament, Munitions and Chemical Command (AMCCOM) at Rock Island Arsenal to undertake its own shipping of radioactive materials. Radioactive materials are packaged in accordance with AMCCOM guidelines and sent via commercial carrier to the Army burial site at Barnwell, South Carolina.

M.3.7.4 Traffic and Transportation.

External Access Routes. The Fort M^cCoy area is well situated for regional highway transportation. Interstate Highways 90 and 94 serve cross country travel along with major regional highways US 12, 14, 53, and 61. State highways in the vicinity provides rural service and scenic routes between smaller towns. State Highway 21 connects Sparta, the main gate, and I-94 north of Tomah. Nearly all traffic in and out of Fort M^cCoy uses this road.

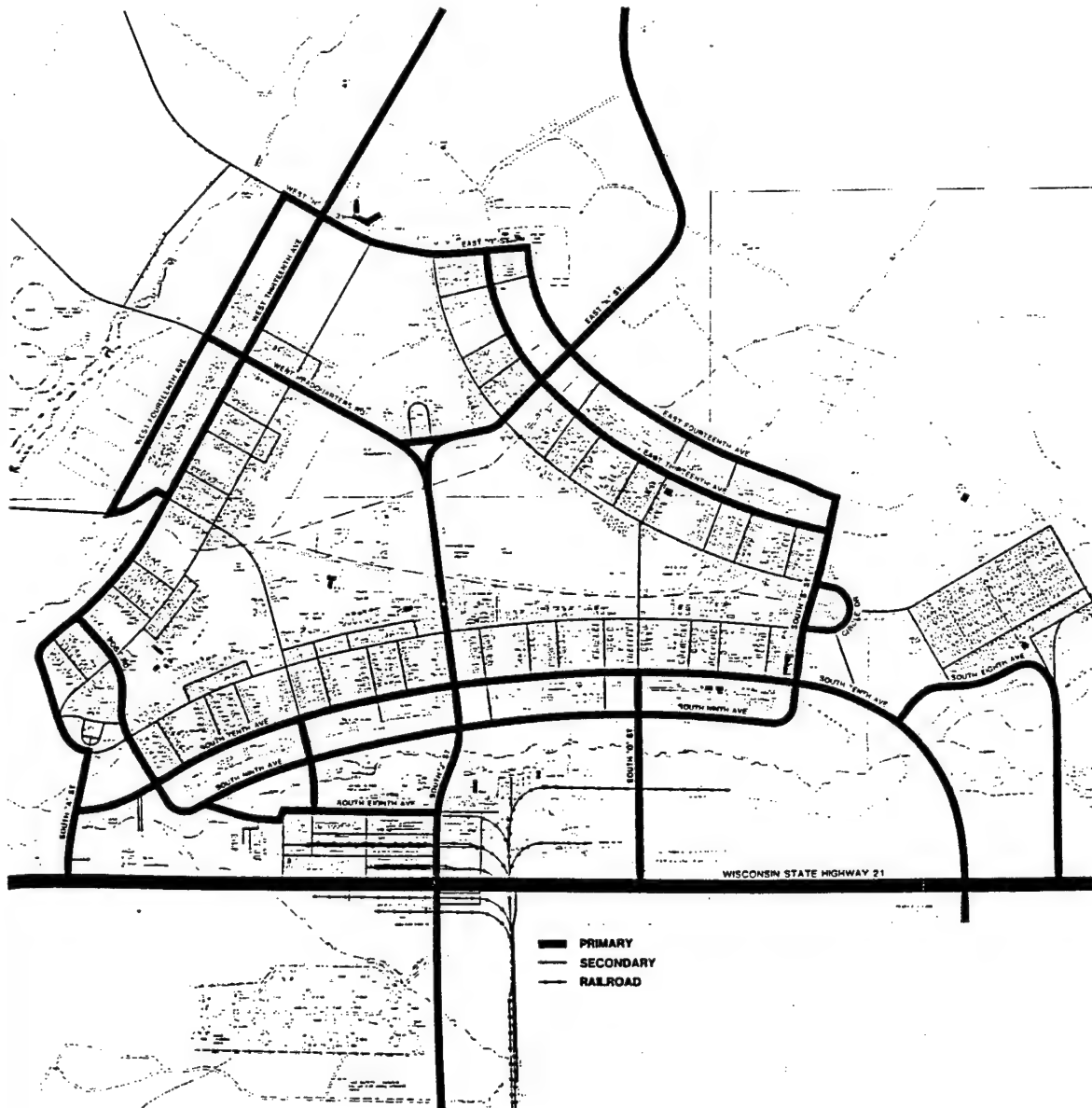
Interior Traffic Circulation Pattern. About 65 percent of all vehicles entering and existing the installation during peak hours in the summer (annual training) use the Main Gate, which is open 24 hours a day. The other two gates, located on Wisconsin 21 and open only during morning and afternoon peak periods, account for the remainder of incoming and outgoing traffic (See Figure 3M-1).

In general the roadway network has adequate capacity for existing circulation requirements, except that delays and backups are experienced during troop arrival periods for annual and weekend training (U.S. Army Corps of Engineers, 1979).

General Roadway Conditions. Fort M^cCoy roadways are maintained regularly and considering their age, are generally in good condition.

Other Transportation Modes. Two major rail lines provide freight service to Fort M^cCoy; the Soo Line and the Chicago & Northwestern (C&NW). No passenger service is currently available at the installation.

Sparta Fort M^cCoy Airport is located approximately four miles southwest of the cantonment area. In the past, its use was primarily limited to summer training and official visits with helicopters and light aircraft. The airfield was upgraded in 1978 to provide C-130 transport category aircraft capability. In 1987, a joint use agreement was reached to permit civilian aviation activities at the facility and to close Sparta Airfield.



**Cantonment Area
Existing Road Network**
FORT MCCOY, WISCONSIN
FIGURE 3M-1

M.3.7.5 Utility Systems.

Utility systems at Fort McCoy include water (potable and non-potable), sanitary sewer, storm drainage, heating and fuel, electrical and communications. The Master Plan Report, prepared in 1989, indicates that each of these systems are adequately maintained and in reasonably good condition. All system components have sufficient excess capacities to accommodate the realignment action and construction. Consistent compliance with water quality standards and effluent limitations has been documented.

M.3.7.6 Solid Waste Disposal.

The Wisconsin Department of Natural Resources (DNR) completed a RCRA Facility Assessment on Fort McCoy in October 1987. This study identified six closed landfill sites. Another old landfill is located adjacent to the LaCrosse River just west of the Sewage Treatment Plant. This landfill is 27 acres in size and is not identified in the DNR's report. Fort McCoy operates an on-post solid waste collection and disposal system. In May, 1988, Fort McCoy also closed a 30-acre sanitary landfill site located approximately one-half mile north of the cantonment area. It now collects its refuse at a transfer station and ships its waste to the Jackson County Landfill.

After consideration of alternative disposal methods, construction of a transfer station to permit solid waste disposal by commercial operators at a DNR licensed facility at the old incinerator building was chosen as most desirable. A new landfill site has been located approximately 2.3 miles northeast of the cantonment. This landfill will be used for construction and demolition debris only. No asbestos will be disposed of at this site.

M.3.8. Socioeconomic Characteristics

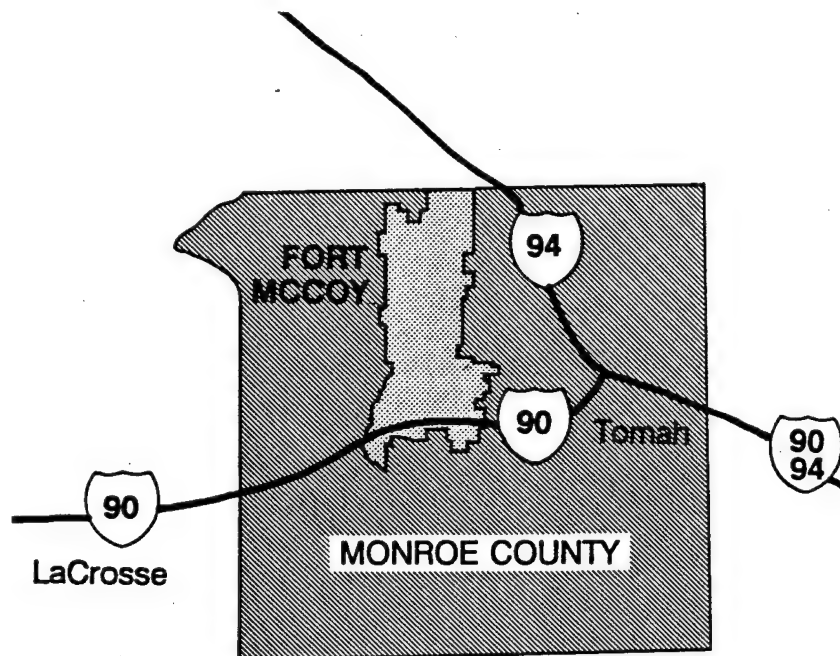
M.3.8.1 Introduction

This section describes pertinent socioeconomic aspects of Fort McCoy and its surrounding environment. Fort McCoy is located in a rural environment. The regional area of influence for the planned realignment action at Fort McCoy has been defined to include all of Monroe County as illustrated in Figure 3M-2. This area is discussed in the context of land use, zoning, community facilities, population, economy and housing.

M.3.8.2 Land Use and Zoning

Monroe County has nine zoned townships. Of these, only New Lyme Township, comes in contact with Fort McCoy. The two zoning categories in New Lyme Township are General Forestry and General Agriculture. These categories include a commercial cranberry bog and portions of Monroe County forest.

Due to the extensive amount of agricultural land, large holdings of state and county forests and overall low density development in the area surrounding Fort McCoy the operation of Fort McCoy is very compatible with surrounding land uses. Furthermore, the vast wooded areas and rolling



LEGEND

 Area of Regional Influence as Used to Evaluate Socioeconomic Impacts



No Scale

Area of Regional Influence

FORT MCCOY, WISCONSIN

FIGURE 3M-2

topography both on and off-post provide effective visual screening and noise buffering of military activities.

The existing land use pattern within the cantonment area at Fort M^cCoy is illustrated on Figure 3M-3.

M.3.8.3 Community Facilities

Monroe County has three hospitals, two nursing homes, the County Infirmary, medical clinics, a mental health guidance clinic, public health activities conducted by the County and numerous individual practicing physicians, dentists and optometrists. The three Monroe County hospitals are in close proximity to Fort M^cCoy. St. Mary's Hospital, located in Sparta, and the Tomah Memorial Hospital in Tomah have a comparable number of beds although the Tomah Memorial Hospital has more extensive facilities. The United States Department of Veterans Affairs Hospital is also located in Tomah. With over 800 beds, this is a much larger hospital than St. Mary's or Tomah Memorial and is primarily a longer term care facility with access restricted to veterans.

Since Fort McCoy does not operate any schools for on-post dependents, these student must enroll in one of the local public or parochial schools. Monroe County is served by five school districts which operate 20 primary and seven secondary schools. The enrollment of all five districts totals approximately 12,000 students. The Tomah district is the largest with a student population of approximately 5,000 followed by the Sparta district with a student population of approximately 4,000. In addition to these public schools, Monroe County has a total of seven parochial schools located in Sparta, Tomah and the Cashton area.

No colleges or vocational-technical schools are located in Monroe County. However, the LaCrosse area offers the University of Wisconsin-LaCrosse and the Western Wisconsin Technical Institute.

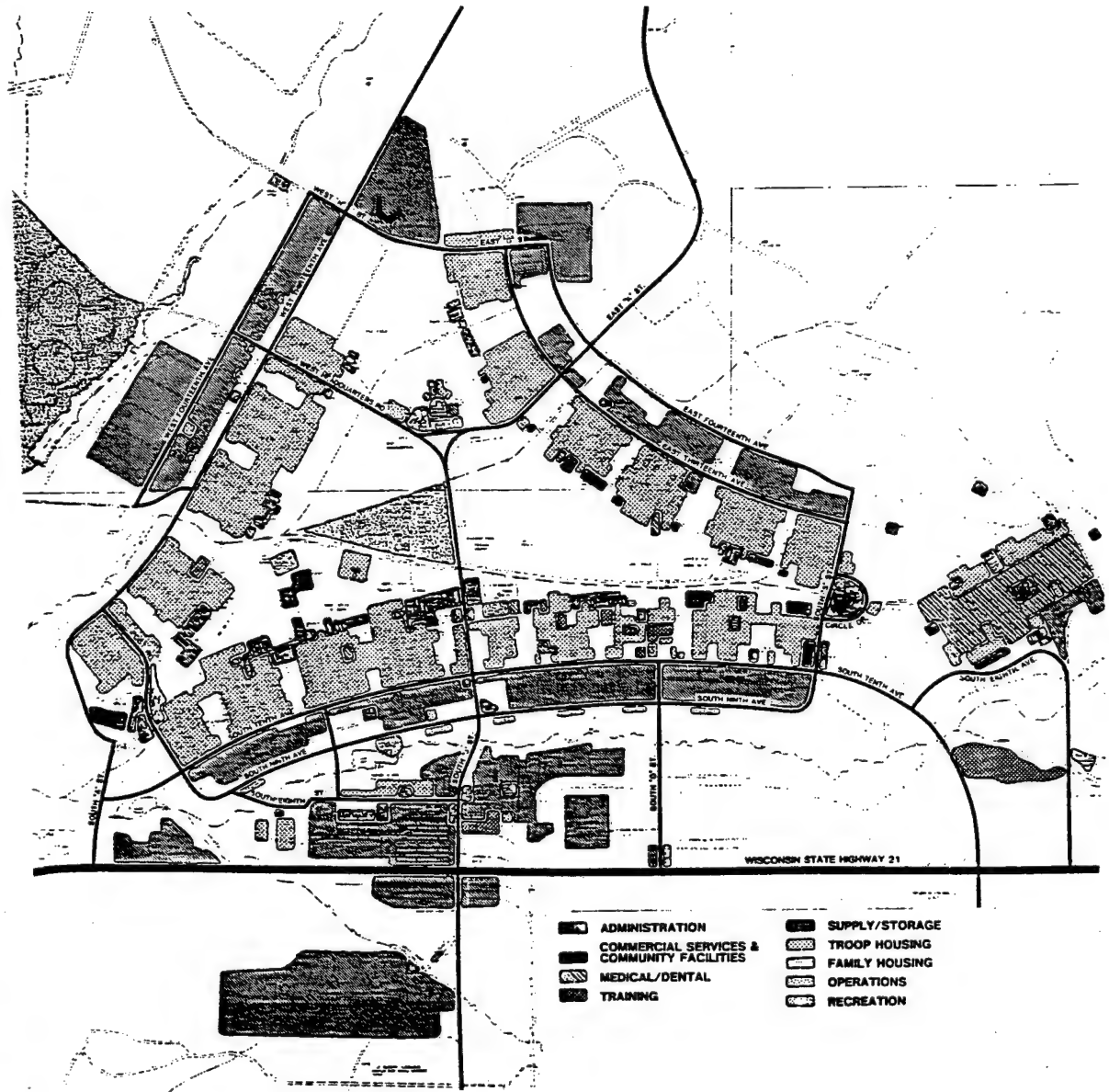
Due to the availability of extensive public lands and the diverse natural characteristics of these areas, recreation opportunities, especially lower intensity outdoor activities, are abundant in the vicinity of Fort M^cCoy. These public lands consist of municipal parks, county parks, forests and campgrounds, state parks and forests, public hunting grounds, regional trails, and historic and scenic features.

In addition to public outdoor recreation facilities, private recreation facilities are located throughout the region. These consist of facilities which serve local area residents such as the private golf courses scattered throughout the area and various rod and gun clubs and destination type facilities. These destination type facilities include private campgrounds and resorts.

Additional water-oriented recreational opportunities are provided by the Mississippi and Wisconsin Rivers, both of which are located within a one hour driving time of Fort M^cCoy.

M.3.8.4 Population

The Fort M^cCoy total population of approximately 2,950 consists of 400 military, 2,300 civilians and an average student training load of 250 students. Also, over 126,000 U.S. Army Reserve



Scale in feet

**Cantonment Area
Existing Land Use**
FORT MCCOY, WISCONSIN
FIGURE 3M-3

personnel train annually at the installation. In addition, there are approximately 850 military dependents and 5,000 civilian dependents.

Based on information provided by the Institute for Water Resources (IWR, 1989) Phase II Socioeconomic Analysis - Fort Sheridan Related BRACO Action, Socioeconomic Impacts at Fort M^cCoy, the population of the area of regional influence (Monroe County) grew by 1,726 persons from 1980 to 1987. The 1989 population for the region has been estimated by IWR to be 37,4892 and is projected to increase to 38,814 by 1994, an estimated increase of 1,332 persons over the five year period to 1989 to 1994. The following shows the growth of population anticipated to continue in 1994.

Population				
Region			(Estimated)	(Projected)
Monroe County	<u>1980</u> 35,074	<u>1987</u> 36,800	<u>1989</u> 37,482	<u>1994</u> 38,814

The regional household total, based on census information, grew from 9,280 households in 1970 to 11,894 in 1980, a total increase of 2,614 households in the region. The IWR report, mentioned above, stated the 1989 estimated number of households was 13,044 and that the 1994 projected number of households would grow to 13,593. The rate of household increase from 1970 to 1989 is expected to continue through 1994 as shown below.

Households				
Region			(Estimated)	(Projected)
Monroe County	<u>1970</u> 9,280	<u>1980</u> 11,894	<u>1989</u> 13,044	<u>1994</u> 13,593

M.3.8.5 Economy

The economic analysis provided by the Institute for Water Resources on Fort M^cCoy indicates that total employment for the region in 1980 was 18,189 and in 1987 was 19,244. The represents a total increase of more than 1,000. The slow rise in employment for the region has caused the unemployment rate to be 5.0 percent. An analysis of average annual data indicates that the 1988 civilian labor force was 17,827. In 1989 the largest employing industrial sector was Services which employs 16.9 percent of the total employed labor. It is estimated that 32.8 percent of the total civilian employed labor force in the region is directly employed at Fort M^cCoy. The 1989 estimated regional per capita personal income is \$10,559. Total regional personal income for 1987 was estimated to be \$422 million.

M.3.8.6 Housing

The 1980 Census shows a regional total of 12,581 housing units and a regional housing vacancy

rate of 5.5 percent. Based on data provided by the IWR Socioeconomic Data Call, approximately 74 percent of the military personnel assigned to Fort M^cCoy live off-post. These off-post personnel generally pay between \$350 and \$500 for rental units and between \$45,000 and \$60,000 for single-family homes.

CHAPTER 4

Environmental Consequences

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

4.1 Introduction

This chapter discusses the direct and indirect impacts of implementing the planned actions, on each of the environmental attributes described in Chapter 3. Sections SC, SR, H and M address the impacts of the Fort Sheridan closure action, Fort Sheridan reuse alternatives, the Fort Benjamin Harrison realignment action and the Fort M^cCoy realignment action, respectively. The chapter concludes with a summary of impacts that cannot be avoided, the relationship between short-term use and long-term productivity, and irretrievable commitments of resources.

Planning of specific closure, reuse and realignment actions is an ongoing process involving the analysis and refinement of implementation details. This document has been prepared based on the best information available during the study process. It is likely that specific implementation details will be modified as final plans are developed. However, the information provided in this chapter is representative of environmental impacts that can be expected to occur.

The following major topic outline is provided to assist the reader in locating each major section of this Chapter.

<u>Sections</u>	<u>Page</u>
4.1 Introduction	4-1
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4.9 Probable Adverse Environmental Affects Which Cannot Be Avoided	4-48
4.10 Relationship Between Short-Term Use of the Environment and the Maintenance and Enhancement of Long-Term Productivity (All Locations)	4-49
4.11 Irreversible and Irretrievable Commitments of Resources (All Locations)	4-50

SECTION SC - FORT SHERIDAN CLOSURE ACTION

SC.4.2 Mission/Functional Activities (Environmental Consequences)

The closure of Fort Sheridan will result in the elimination of the military mission at Fort Sheridan, except for the continued operation of a Reserve Component Area to be provided within an approximately 100 acre area retained for that purpose. As discussed in Chapters 1 and 2, the current mission responsibilities and requirements will be assumed at various locations that are to receive units and personnel from Fort Sheridan.

SC.4.3 Physical Environment (Environmental Consequences)

SC.4.3.1 Climate

The closure of Fort Sheridan will have no impact on the local climate.

SC.4.3.2 Topography

Impacts on the topography of Fort Sheridan resulting from the planned closure will include alterations of existing contours that may be created by construction of new facilities and the demolition, renovation, or rehabilitation of existing facilities within the Reserve Component Area. Under the southern Reserve Component Area plans (A,B,C and G) topographic adjustments would be relatively minor, and would be limited to previously developed areas of the installation. However, placement of the Reserve Component Area in the northwestern corner of the installation (plan D) could result in more significant topographic adjustments since major portions of the area are currently undeveloped, and the existing topography includes steep slopes related with Jane's Ravine which dissects a major portion of the site. Preliminary site concepts for the northern area have avoided proposed construction that would have any direct impact on the ravine. Regardless of the area selected, compliance with all applicable erosion control and storm drainage regulations will be maintained during and after construction.

SC.4.3.3 Geology and Mineral Resources

No significant impacts to geologic and mineral resources at Fort Sheridan will occur as a result of the closure action.

SC.4.3.4 Soils and Shoreline Erosion Hazard

Closure of Fort Sheridan will have some positive impacts on soils due to the elimination of additional military construction (other than the Reserve Component Area) which will prevent grading and excavating for new structures. The reduction in construction activity as well as the reduction in vehicular and pedestrian traffic on undeveloped areas will reduce soil erosion potential. The risks of soil contamination by spills or accidental releases of hazardous materials from military operations will also be reduced.

Construction of new facilities and/or renovation, rehabilitation, or demolition of existing facilities in the Reserve Component Area will also result in temporary disturbance of the soil. Soils in these areas generally consist of Morley Silt Loams disturbed by previous construction and development. As discussed in Section SC.4.3.2, the potential for soil erosion is greater in the northern Reserve Area D plan versus the southern area plans. Compliance with all applicable stormwater management and erosion control regulations and guidelines during and after construction will minimize the erosion potential and prevent soil loss.

As stated in Chapter 3, an erosion abatement project for the Lake Michigan shoreline at Fort Sheridan has been completed. The U.S. Army will be responsible for maintenance of the shoreline during any caretaker status period. Ultimately, ongoing shoreline maintenance and erosion control will be the responsibility of the new property owner(s).

SC.4.3.5 Air Resources

Closure of Fort Sheridan will cause a reduction in air pollutant emissions from the three primary sources within the facility. The central heating plant and the individual heating units in the troop cantonment area will be inactivated and emissions from these sources will be reduced to zero. Emissions from motorized vehicles will decrease substantially as the facility population is reduced by approximately 90 percent, thus eliminating most commuter traffic. These reductions, while beneficial, are not expected to result in significant changes in the local or regional air quality.

SC.4.4 Water Resources (Environmental Consequences)

SC.4.4.1 Groundwater

Several old landfills have been identified on the site. The composition of these landfills consist variably of non-toxic components such as coal ash and other debris. However, two of these landfill sites (#3 and #6) may contain some hazardous substances. The potential for migration of unidentified contaminants in the soil to the aquifer is unlikely due in part to the low permeability rate and also to the ion exchange capacities of the soil.

As previously discussed in the soil resources section (SC.4.3.4), all potentially hazardous materials and wastes will be removed from the installation under the provisions of the Defense Department's Installation Restoration Program (IRP). Because current operations have not been identified as sources of contamination, this impact, although beneficial, is not considered to be significant.

As described in the affected environment section, Fort Sheridan and the surrounding communities use Lake Michigan as their water supply source due to the naturally poor quality of the groundwater in the area. Consequently, no impacts to groundwater quality or quantity are anticipated with closure activities.

SC.4.4.2 Surface Water

The potential for degradation in surface water quality at Fort Sheridan will effectively be reduced as a result the closure action in that a lower incidence of accidental release of petroleum products or other hazardous substances will occur as a result of decreased military operations. However, operations will continue in the Reserve Component Area. Each of the southern alternatives for the Reserve Component Area (plans A,B, C and G) are well removed and isolated from surface water resources (ravines and ponds). Therefore, impacts from accidental spills or pollutants in surface water runoff will be relatively minor as spills typically are cleaned up prior to their reaching any surface water resource.

The nearness of Reserve Component Area plan D to Jane's Ravine and its downgradient surface water resources (e.g., Lake Michigan) increases the potential for impact. Initial construction activities (e.g., buildings, utility systems, roads) followed by a higher intensity of use in this primarily undeveloped area will increase the potential for siltation and sedimentation. In addition, the incidence of accidental spills and the subsequent migration of contaminants to surface water resources may also increase. Potential impacts to surface water resources may be reduced by providing for adequate erosion and sedimentation controls and by providing for spill prevention planning and control.

Exceedences in effluent standards of the North Shore Sanitary District have been recorded. Contributing factors to these violations include the overall inefficiencies of the system at Fort Sheridan and past overloading of the treatment facility during periods of heavy rainfall. Recent improvements and repairs in the collection system at Fort Sheridan have however, reduced the relative impact of Fort Sheridan on regional water quality. Closure actions will have no impact on this condition.

SC.4.4.3 Floodplains/Wetlands/Coastal Zones

As discussed in Section S.3.4.3 floodplains and wetlands in the project area are predominantly restricted to the Lake Michigan shore and beach areas. An additional small palustrine wetland is also represented by the fish pond at the north end of the site.

The potential for negative impacts on area floodplains and wetlands will be reduced as a result of the closure action since transfer of the military mission will preclude the need for development of additional facilities and related infrastructure which could add to the quantity of surface water runoff. However, it is anticipated that new construction projects will be completed within the Reserve Component Area to be maintained as part of the closure action.

Construction activities at potential Reserve Component Area plans A,B, C or G (southern area plans) are not expected to have any significant direct or indirect impact on floodplains, wetland resources or coastal zones in the project area. This is due to the fact that building rehabilitation and/or new construction would occur a considerable distance from floodplain or wetland resources and would be limited to the existing, previously disturbed cantonment area.

If Reserve Component Area plan D is selected (northern plan) some potential exists for an indirect impact on Jane's Ravine and its associated coastal floodplain area. This conclusion is based on the fact that new construction will occur on previously undeveloped areas directly adjacent to the western end of Jane's Ravine. This impact could be mitigated through careful site design including adequate attention to drainage details and provision for on-site retention of stormwater runoff.

SC.4.5 Biological Resources (Environmental Consequences)

SC.4.5.1 Wildlife Resources

The withdrawal of military personnel and closure of the installation generally will have positive impacts on the biological environment. Because of the decreased amount of maintenance and military operations, the installation may provide a better habitat for plant and animal species. With the elimination of military operations, it would be expected that wildlife will benefit to some degree. This benefit, however, is expected to be minor as the general habitat within the site will remain generally unchanged.

Although a slight temporary increase in silt loading within the ravines is expected due to proposed Reserve Component Area construction projects (particularly plan D), the amount of suspended sediment involved would not represent a significant impact to Lake Michigan. Consequently, no impact to the local Lake Michigan fish community is expected.

It should be noted that selection of Reserve Component Area plan D (northern area plan) would result in a relatively higher potential for impacts to wildlife resources due to the proximity of new development to Jane's Ravine.

SC.4.5.2 Plant Resources

Although much of Fort Sheridan consists of landscaped areas and horticultural plantings, the ravines and the lake bluff area represent relatively unique natural habitats that support several rare plant species. Closure of Fort Sheridan will have a positive impact in that these resources will not be subject to encroachment resulting from continued or expanded military operations.

Some new construction activity will be implemented as part of the plans for the Reserve Component Area to remain at the site. Selection of Reserve Component Area plans A,B, C or G (southern area plans) is not expected to result in impacts to natural plant resources as related construction projects would be located in previously disturbed areas. Selection of the northern area (plan D) for the Reserve Component Area would result in a direct impact to existing plant resources on the flat terrace areas of the site that would be used for new construction, and potential indirect impacts on adjacent habitat within the upper reach of Jane's Ravine. An appropriate level of routine maintenance of landscaped areas (as required to prevent significant deterioration or loss of resources) is expected to be accomplished following realignment activities until the area is converted to new uses.

SC.4.5.3 Threatened and Endangered Species

Base closure and realignment activities are not expected to result in impacts to any federally threatened or endangered species. Although certain construction projects are planned, as part of the various Reserve Component Area alternatives, none of these plans would require construction on areas that are known to provide habitat for threatened or endangered species. If plan D (northern area) is selected for the Reserve Component Area, there is a potential for indirect adverse impacts to state listed threatened and endangered plant species that are known to occur in the lower reaches of Jane's Ravine (See Section S.3.5.3). If this site is selected for development, a more detailed site-specific evaluation of potential impacts within the upper reaches of Jane's Ravine may need to be made.

Mitigation of these potential impacts may be accomplished by the establishment of buffer zones (e.g., 50' wide) around sensitive natural areas (Jane's Ravine, Lake Bluff Area), by transfer of ownership of Jane's Ravine to the U.S. Fish and Wildlife Service or some other preservation agency, or by the use of deed restrictions on development of these areas.

SC.4.6 **Cultural Resources** (Environmental Consequences)

SC.4.6.1 Native American Values

Earlier investigations have indicated that there are no Native American cultural values associated with Fort Sheridan. Therefore, the closure of the installation is not expected to impact such values.

SC.4.6.2 Archaeological Resources

Previous archaeological surveys at Fort Sheridan indicate very little potential for undetected archaeological resources. A very small area at the north end of the installation on the eastern edge of the parade ground (Figure 3S-5) is recommended for further survey. The Illinois State Historic Preservation Officer (SHPO) will be contacted and an appropriate survey conducted. If this survey reveals the presence of archaeological resources eligible for inclusion in the National Register of Historic Places, further consultation will be undertaken pursuant to Section 106 of the National Historic Preservation Act and the Programmatic Agreement (PA) executed February 5, 1990 by the Army, the Advisory Council on Historic Preservation (Council) and the National Conference of State Historic Preservation Officers. This process will establish means of preserving such resources, and agreed-upon preservation mechanisms will be implemented. A copy of the PA has been included as Appendix B of this document.

Development of the Reserve Component Area under the closure action may involve the construction of new buildings depending upon the alternative selected. Reserve Component Area plans A,B, C and G (southern area plans) limit proposed development to previously disturbed areas. Therefore, the potential for encountering undisturbed archaeological resources in this area is rather remote.

A number of previous archaeological surveys have already been conducted within the boundaries of the potential northern Reserve Component Area (plan D). These previous surveys are discussed in Section S.3.6.2. These surveys did not identify any significant resources. However, given the relatively undisturbed nature of this site, extra care will be taken prior to implementing any construction activities to insure full compliance with historic preservation requirements.

SC.4.6.3 Architectural Resources

None of the Reserve Component Area plan options are located within the boundaries of the Fort Sheridan Historic District. Therefore, potential construction or rehabilitation projects within the Reserve Component Area are not expected to have any direct impacts on historically significant properties. After closure, it is assumed that the historic district buildings will be inactivated, placed in storage condition, secured and maintained as necessary to avoid deterioration prior to implementing final reuse activities.

Given the current uncertainty of the future ownership and use of the historic district and its surrounding environs, the closure of Fort Sheridan may ultimately result in adverse impacts to the district. Accordingly, the U.S. Army will continue to use the consultation processes prescribed in Section 106 of the National Historic Preservation Act, its implementing regulations (36 CFR 800) and the Programmatic Agreement described in the previous section to establish what actions will be taken in connection with closure to avoid or mitigate adverse impacts.

SC.4.7 Human Environment (Environmental Consequences)

SC.4.7.1 Visual and Aesthetic Values

No significant impacts to visual and aesthetic resources will occur as a result of the closure action. While the installation is in caretaker status (prior to disposal of the property) maintenance crew personnel will conduct mowing, litter control and other necessary operations as required to protect existing resources. Security personnel will routinely patrol the facilities to prevent vandalism. Most of the buildings are of brick construction, therefore no significant deterioration of the building exteriors is anticipated. Should any vandalism, deterioration, or other visually disruptive incidents occur during the caretaker status period, necessary clean-up or repair measures will be taken. The U.S. Army will be responsible for control of the installation during the caretaker status period. Necessary maintenance and security personnel and equipment will either be provided by the U.S. Army or through a government controlled private contractor.

The increased visibility of the Reserve Component Area activity resulting from the retention of any of the potential Reserve Component Area sites (plans A,B,C,G and D) may create a negative impact on the view from adjacent communities. This impact however, can be mitigated by landscape plantings and/or decorative fence buffers along the boundaries of the Reserve Component Area. Selection of the northern area (plan D) is also likely to have a negative impact on a portion of the existing golf course area.

SC.4.7.2 Noise and Odor

Noise. Upon closure of Fort Sheridan, noise generation will be greatly reduced. Vehicular traffic and base operations will be reduced to that generated by the activities in the Reserve Component Area and by the caretaker status maintenance and security vehicles. Minor noise reduction will also result from the elimination of the daytime operation of rotary-wing aircraft at Haley Army Airfield (Helipad), and the closure of the recreational trap-shooting facility at the northeast corner of the installation. A temporary, minor increase in noise may occur if new structures are erected in the Reserve Component Area.

Odor. The major source of odor identified in Chapter 3 (landfill gases at Landfill No. 7) will remain unless actions resulting from the ongoing IRP process (as described in Section 1.6.4) dictate otherwise. In either event, any negative impacts identified by the IRP process will be mitigated before the property is exsessed. Other odor generating activities such as minor industrial operations and vehicular exhaust will be reduced as a result of the closure action.

SC.4.7.3 Hazardous Material Sites

Installation Restoration Program. The closure of Fort Sheridan will prevent new hazardous waste sites from being generated by military operations other than the Reserve Component Area activities. The elimination of these sites and subsequent spills and/or releases will have a positive impact on the biological and physical environment of the installation. The impact of past hazardous material sites may not be short-term, therefore certain sites on the property to be disposed of, and under investigation and assessment by the IRP process (as described in Section 1.6.4) could be restricted from future development until necessary remedial actions are completed.

Construction Site Screening. The planned expansion of the Reserve Component Area may require the construction of several new facilities. Current Army guidelines require that all proposed construction sites be screened for potential contamination, and categorized according to the degree of risk they pose to human health and safety. Prior to construction, all sites will be evaluated and categorized, and appropriate remediation measures will be accomplished on any sites determined to be contaminated.

Industrial Operations. The industrial operations at Fort Sheridan (as summarized in Chapter 3 and discussed in detail in the 1989 USATHAMA report) have generated numerous minor spills and releases of hazardous or toxic materials. Necessary remedial actions, as determined by the IRP process, for any such spills or releases will be completed prior to future development or

reuse of the area in question.

Certain minor industrial/support activity operations within the Reserve Component Area will continue after the closure of Fort Sheridan. These operations will continue to comply with the guidelines and regulations which require that toxic and hazardous materials be properly recycled through the Great Lakes Naval Training Center Defense Reutilization and Marketing Office (DRMO) or disposed of through a licensed private contractor. Control of future spills or releases of hazardous or toxic materials at the reserve area will be the responsibility of the U.S. Army.

Nike Missile Site. A large variety of hazardous wastes associated with the operation of this site were identified in the 1989 USATHAMA report and summarized in Section S.3.7.3 of this document. Little is known however, of the disposal practices during the operation and therefore the contamination potential is also undetermined. The IRP process will further evaluate this site and make recommendations for testing and remedial action if required.

Radioactive Materials. The storage of small amounts of radioactive materials at the Reserve Component Area will continue after the closure of Fort Sheridan. These materials are used as calibration sources within radiological survey instrumentation. Any potential danger from radioactive materials and/or releases thereof, will be addressed by the ongoing IRP process and remedial actions will be taken if necessary.

Pesticides. No significant impact concerning pesticide use will occur due to the closure of Fort Sheridan. Pesticides, insecticides, rodenticides, and herbicides will continue to be used during the caretaker status period for pest, rodent, and weed control. Should any problems resulting from past use of these materials be identified during the IRP process, appropriate remedial action will be taken.

Radon. As described in Chapter 3, a radon testing program is underway at Fort Sheridan. Necessary remedial actions will be implemented as required.

Mercury. Silk screening operations which resulted in high levels of mercury in the sanitary sewage have been discontinued, thereby eliminating any future releases from Fort Sheridan.

PCB Transformers. The IRP process will evaluate the potential for contamination by PCBs at Fort Sheridan. Any problems identified during the process or by the transformer testing program currently being conducted, will receive appropriate remedial action.

Asbestos. All asbestos-related issues will be addressed by the ongoing asbestos abatement program and the IRP process before the property is disposed of.

Underground Storage Tanks. In accordance with Illinois EPA regulations, all underground storage tanks and the soil around the tanks are being tested for leakage and contamination. Contaminated soil and leaking tanks will receive necessary remedial action.

Ammunition Use, Storage, and Disposal. Closure of Fort Sheridan will have a positive impact on the use, storage, and disposal of ammunition. The existing storage area will no longer be required and therefore any potential for release or explosion from the facility will be eliminated. Concerns relating to past disposal sites will be addressed by the IRP process.

Infectious Wastes. The closure action will result in the elimination of infectious waste generation at Fort Sheridan.

SC.4.7.4 Traffic and Transportation

Under the closure action, a reduction of installation related traffic volumes can be expected on all external roadways serving the installation. Since the closure will reduce the amount of activity at the installation, the impact on the internal roadways will be positive in that traffic will be reduced to that associated with the operation of the Reserve Component Area and installation maintenance activities. This reserve activity will consist of approximately 400-500 reservists using the facility for two or three weekends per month. This activity will result in peak hour movement of vehicles on both Saturday and Sunday when the reservists are using the facilities. The level of reserve activity will not exceed that already taking place on the installation, and will not result in any change of the traffic flow patterns in the area surrounding the installation.

The freight only railroad spur may continue to be used to serve the Reserve Component Area after closure, but at a lower activity level. Rotary-wing aircraft use at Haley Army Airfield (Helipad), Fort Sheridan will be discontinued.

There are large amounts of both government and personal equipment, materials, and property located at Fort Sheridan which may be shipped to alternate sites under the closure action. The peak time for movement will be from FY 1991 through FY 1993. Most of the shipping will be accomplished by truck transport although some larger items could be moved by rail. Virtually all the long-haul shipments will be transported to the interstate highway system by way of local arterial and collector streets. Roadway capacity should not be a problem provided care is taken to avoid scheduling large shipments during rush hours.

SC.4.7.5 Utility Systems

A summary of probable impacts of the closure of Fort Sheridan on existing utility systems is presented in Table 4 SC-1. The water and wastewater system impacts have been assessed on the basis of anticipated changes in the effective population. Effective population is defined as the product of the number of military and civilian personnel (including dependents) multiplied by the percentage of a 24-hour day spent on the site. Heating fuel and electrical system impacts are based on the anticipated decrease in building square footage to be heated.

TABLE 4 SC-1

SUMMARY OF PROBABLE IMPACTS OF THE CLOSURE ACTION
ON UTILITY SYSTEMS AT FORT SHERIDAN

EFFECTIVE POPULATION

Present	3,000
After Closure	277
Decrease	2,723
Percent Decrease	90.8

WATER SUPPLY

Per Capita Allocation (gpcd) ^a	150
Present Demand (mgd)	0.450
After Closure (mgd)	0.042
Decrease (mgd)	0.408
Percent Decrease	90.7

WASTEWATER DISPOSAL

Maximum Allowable Discharge (mgd)	2.6
Per Capita Contribution (gpcd) ^a	100
Present Contribution (mgd)	0.300
After Closure (mgd)	0.028
Decrease (mgd)	0.272
Percent Decrease	90.7

HEATING FUEL (Natural Gas and Fuel Oil)

Annual Demand (Btu/ft ²) ^b	158,084
Present Demand (Billion Btu) ^b	378
After Closure (Billion Btu) ^c	131
Decrease (Billion Btu)	247
Percent Decrease	65.3

ELECTRICITY

Annual Demand (Btu/ft ²) ^b	23,323
Present Demand (Billion Btu) ^b	56
After Closure (Billion Btu) ^c	19
Decrease (Billion Btu)	37
Percent Decrease	66.1

Source:

^a TB ENG 354, Installation Expansion Capability Guide - Dept. of the Army, Jan. 1976.^b Energy Engineering Analysis - Basewide Study (EEAP), U.S. Army Corps of Engineers, May 1986.^c Base Closure Study, U.S. Army Corps of Engineers, 1990.

Water System. As shown in Table 4 SC-1, the water demand will be greatly reduced by the closure of Fort Sheridan. Water will most likely be provided to Fort Sheridan by the adjacent municipalities of Highland Park and Highwood via the existing cross-connection of the systems near the south gate. The water treatment facility will be inactivated until such time that future development may warrant reactivation. Building service lines and interior plumbing will be drained and winterized. The primary distribution system will remain in service for fire protection purposes. Inactivation of the treatment facility and continuing preventive maintenance of the water system will be accomplished by the U.S. Army until final disposal of the property.

The impact of the closure action on the water systems of the adjacent municipalities will be an overall decrease in demand. The reduction is due to the decrease in population brought about by the installation closure. The magnitude of the decreased demand will not be such that the efficiency of the municipal systems will be adversely affected.

Wastewater Systems. The closure of Fort Sheridan will result in a reduction in the current volume of wastewater discharged to treatment plants within the region. Because the people who would be affected by the closure action are distributed throughout the region, the reduction in population would not create a significant impact on any single plant in the region. The maximum effect would be experienced by the Clavey Road treatment plant which currently receives wastewater from Fort Sheridan and would continue to do so after the closure action (from flows generated by the Reserve Component Area). The estimated changes in flow at these plants are well within the normal fluctuations in flow at sewage treatment plants. It is not expected, therefore, that plant performance would deteriorate as a result of the closure action. That portion of the sanitary sewage collection system not required for service of the Reserve Component Area will be inactivated and maintained by the U.S. Army during the caretaker status period. The closure action will result in a decrease in the current average flow from Fort Sheridan (See Table 4 SC-1). This low flow may necessitate replacement of some of the existing discharge pipes and pumps with smaller sized units for more efficient operation.

Completion of the sewer system improvement projects discussed in Section S.3.7.5 will alleviate the present overload of the sanitary sewer system during periods of heavy rain, and the subsequent discharge of untreated sewage into Lake Michigan.

Storm Drainage System. The closure of Fort Sheridan will have no impact on the existing storm drainage system at Fort Sheridan. Potential construction of new facilities at the Reserve Component Area may create an increased impervious area and therefore result in additional stormwater runoff. Although the increased runoff is expected to be minimal, revisions or replacement of some existing storm drainage structures and construction of stormwater detention facilities may be required. Any potential impact on the storm drainage system will be eliminated by proper design of new facilities and compliance with current applicable regulations.

Heating and Fuel Systems. As shown in Table 4 SC-1, closure of Fort Sheridan will result in a major reduction of the demand for heating fuels on the installation. Because most of the buildings now served by the Central Heating Plant (Bldg. 40) will not be heated after the closure action, continued operation of the plant will not be feasible. The existing buildings within the area retained for the Reserve Component Area now heated by the central plant will be converted to individual heating units served by the existing natural gas distribution system. This conversion

will require extensions and revisions of the existing gas distribution system. The remainder of the gas distribution system, the central heating plant and the steam distribution system will be inactivated by the U.S. Army. Reductions to heating fuel demands outside the installation created by the anticipated population decrease will be negligible when compared to total area demands.

Electrical System. Table 4 SC-1 indicates a significant reduction in electrical demand at Fort Sheridan resulting from the closure action. As with the other utility systems, the U.S. Army will maintain control of and perform preventive maintenance on that portion of the system not required for service to the Reserve Component Area. The impact of reduction in demand from Commonwealth Edison will be negligible compared to the total power supplied to the area by the company.

SC.4.7.6 Solid Waste Disposal

The closure of Fort Sheridan will result in a reduction of the volume of solid waste generated. The reduction in volume will be a very small percentage of the total volume of solid waste received by regional landfills, therefore no significant impact on the remaining life of the landfills will occur due to the closure action. Demolition of existing facilities within the Reserve Component Area may result in a temporary increase of waste generated. This temporary increase will also be insignificant in relationship to regional volumes and will not significantly impact the remaining landfill life.

SC.4.8 Socioeconomic Characteristics (Environmental Consequences)

SC.4.8.1 Introduction

Evaluation of socioeconomic impacts is directly related to an understanding of the number of personnel authorizations to be transferred or eliminated from Fort Sheridan. The specific number of civilian and military personnel and their associated dependents continue to be subject to further evaluation and refinement. It should be noted that the personnel authorizations referenced in the Socioeconomic Effects Analysis prepared to support this EIS by the Institute for Water Resources (IWR, 1989) were based on the personnel authorization migration information shown on Table 1-1 included in Chapter 1 of this document.

The migration numbers specified herein are subject to further change. However, the referenced migration pattern and number of persons involved are representative of the general magnitude of population shifts expected to occur, and are sufficiently accurate to evaluate socioeconomic impacts at the closing and receiving installations.

SC.4.8.2 Land Use and Zoning

Existing land use at Fort Sheridan will change as a result of the closure action. Approximately 600 acres of land will become available for reuse. Included in this total acreage is approximately 205 acres which has been designated as a National Register Historic District. Additionally, there are approximately 100 acres, generally located in the southwest or northwest portion of the installation that will be used by the U.S. Army Reserve. It is anticipated that this use will require some buffer from on-and off- post land uses. These off-post uses include multi-family residential

and commercial uses. Use of the 600 acres which will become available as a result of the closure action will be subject to local land use and zoning control. No negative impact on adjacent land use is anticipated. The existing cemetery area will most likely be transferred to the Department of Veterans Affairs for continued operation and maintenance. Therefore, no adverse impacts to this resource are anticipated.

SC.4.8.3 Community Facilities

Elementary School District 111 will experience a decrease in attendance of approximately 450 pupils. This decrease will be distributed through grades Kindergarten-8. This action will result in the elimination of Military Impact Aid (P.L. 81-874) and the possible elimination of an estimated 25 to 30 school related jobs (Highwood-Highland Park Education Association, 1989). However, the Superintendent of School District 111 has stated that the closure of Fort Sheridan will result in a positive economic impact because the reduction in expenditures made possible by the loss of students will be greater than the total loss in federal and state aid (telephone interview, Powell, 1990). The 1989 Military Impact Aid (P.L. 81-874) entitlement for School District 111 was approximately \$1.3 million; however, the total allocation was only approximately \$800,000. In 1989, state aid for the district totaled approximately \$664,000.

Because the closure of Fort Sheridan will reduce the number of students in the District by approximately 33 percent, the aid will decrease by a similar percentage, which amounts to approximately \$27,000 in federal aid (apart from Military Impact Aid) and \$219,000 in state aid. The decrease in students will decrease Education Fund expenditures about 25 percent. The current annual school District 111 Educational Fund budget of approximately \$5.8 million would be reduced to approximately \$4.4 million (telephone interview, Powell, 1990). Elementary School District 111 serves 100% of the Fort Sheridan elementary students. High School District 113, which also receives incoming freshman from four other elementary districts, would realize a four percent decrease in students as a result of the closure action.

Most of the area surrounding Fort Sheridan has been developed, therefore decreasing the opportunity to replace lost students from new growth. However, alternate uses proposed for Fort Sheridan are likely to add new students back into the system.

Other community facilities including recreation, religious, public safety and community service facilities are not anticipated to experience any significant negative impact as a result of the Fort Sheridan closure action.

The closure and realignment of Fort Sheridan will result in the unavoidable loss of services to some local military retirees. Of particular concern will be the losses of military sponsored medical facilities; Commissary and Port Exchange services; and a variety of recreational facilities.

The closure action at Fort Sheridan will result in the elimination of all on-post medical assistance. All out patient health care for Army personnel and dependents remaining in the Chicago area will be provided at Great Lakes Navel Base. In-patient care will not be affected by closure because this service is already provided by the Great Lakes Navel Base. Health care for civilians remaining in the area will continue to be provided by local medical facilities.

Military retirees and their dependents currently have access to medical service facilities provided for active duty personnel at Fort Sheridan. However, the closure action will result in the loss of services for retirees at Fort Sheridan. This loss will be partially offset by medical service reimbursement available to retirees through the Civilian Health and Medical Program of the Uniform Services (CHAMPUS) program.

In addition to the loss of on-post medical services, some retirees will also be affected by the closure of the installation chapel and community club. These losses could be reduced if the subsequent landowner(s) sponsor equivalent facilities and functions.

Other community facilities at Fort Sheridan that will be impacted by the closure include the existing cemetery and museum. Regarding the cemetery, Army Regulation 210-190 stipulates that cemeteries located on inactive military installations should be transferred to state, county, municipal or some other appropriate agency located near the cemetery. The Department of Veterans Affairs has indicated an interest in assuming responsibility for the existing cemetery area, as well as potential land area for expansion of the cemetery. If this transfer occurs, no direct or indirect adverse impacts are expected to occur on the operation and maintenance of the cemetery. The Army is currently preparing a plan for disposition of the artifacts at the museum.

The loss of other on-post services, such as the commissary, post exchange and various recreational facilities will generally be offset by the availability of facilities and services at other military installations in the Chicago metropolitan area.

SC.4.8.4 Population

The total number of military and civilian authorizations and associated dependents to be transferred out of the region have been estimated to be approximately 5,000. Additionally, 305 military and 824 civilian personnel authorizations will be eliminated. The impact associated with the transfer and elimination of these authorizations on the Lake County region represents a total loss in population of approximately 8,600 persons or approximately a 1.6 percent total decrease in regional population (based on 1987 levels). The Institute for Water Resources socioeconomic analysis conducted in support of this EIS (IWR, 1989 - Fort Sheridan) concluded that this change in population may be significant in terms of its statistical variation from "normal" fluctuations in the region. However, this change in population does not necessarily have any adverse or beneficial impacts on community services, infrastructure or the economy, all of which are discussed in other sections of this EIS.

The Fort Sheridan Civilian Personnel Office will develop an execution plan for employee assistance for both appropriated and nonappropriated fund personnel. The plan will, as a minimum, encompass the following:

- relocation impact and employee job rights,
- projected and legal notification periods,
- time table for any required labor union negotiations,

- detailed placement guidance, and
- method of providing continuity of essential operations during the drawdown period.

The Army will make all reasonable efforts to avoid involuntary separations by reduction in force, but where reductions are unavoidable, every effort will be made to assist employees to find other jobs through existing outplacement programs or other mitigating programs such as early retirement. Employees involuntarily separated will receive the termination and severance benefits to which they are entitled.

There is no policy that currently covers the Nonappropriated Fund (NAF) employees in a base closure situation. The U.S. Army Community for Family Support Center (USACFSC) preferred policy is that all full-time NAF who are adversely affected by base closure and are willing to relocate to another installation submit an application for Nonappropriated Fund Employment, DA Form 3433, indicating position(s), and grade(s) they are willing to accept, along with the installation(s) to which they are willing to relocate if positions for which they qualify are available. Installations would impose a freeze on local recruitment for those positions for which a base closure candidate is qualified and available. Declination of a valid offer would terminate the employee's priority. USACFSC will be responsible for development of policies, mechanisms, and benefit determination for NAF employees.

Some of the military personnel remaining in the Fort Sheridan area may be displaced from military housing by the closure action. Local housing is available in the civilian market, therefore the relocation of these personnel is not expected to cause significant hardships.

SC.4.8.5 Economy

The economic impacts resulting from the closure of Fort Sheridan relate to decreases in employment, personal income, and business volume. These impacts were evaluated in a report prepared under the direction of the Institute for Water Resources (IWR, 1989 - Fort Sheridan). The referenced report was prepared by the U.S. Army Base Realignment and Closure Office (BRACO) Socioeconomic Effects Analysis (SEA) Team. Pertinent SEA Report documents are on file at the Louisville District Office, Corps of Engineers. The SEA Report estimated that the following changes will occur at Fort Sheridan as a result of the closure and realignment action:

- Installation expenditures for goods, services, supplies, and materials are expected to decrease by approximately \$18.1 million.
- Realignment - associated construction expenditures at the Reserve Component Area will be approximately \$8.4 million.
- Realignment activities in the Fort Sheridan area will result in a one-time expenditure of approximately \$14.3 million.
- A portion of the affected permanent military and civilian personnel and their dependents held employment outside their military related jobs. Due to changes in personnel at Fort Sheridan, the number of civilian and military personnel holding second jobs will decrease by approximately 110 full-time jobs and the number of

working dependents is expected to decrease by approximately 1,500 person-years. These job changes will decrease regional wages and salaries by approximately \$20.9 million.

The BRACO SEA Team used the Construction Engineering Research Laboratory (CERL) Economic Impact Forecasting System (EIFS) model to quantify the socioeconomic impacts associated with the realignment actions. Impacts (regional losses or gains) associated directly with closure and realignment actions are considered to be primary impacts. Hence, primary impacts include changes in the following parameters: personnel employed at the installation, their salaries, procurement, and the initial expenditures for realignment associated construction. Secondary impacts are those effects induced by the initial (primary) impact. For example, a decrease in the regional demand for goods and services that is associated with a regional decrease in the number of persons earning wages and salaries.

Total reported impacts include all primary and secondary impacts. The outputs of the EIFS model relating to economic impacts that are likely to occur in the Fort Sheridan region as a result of the closure action are summarized below:

Realignment Economic Impacts. It has been estimated that the closure of Fort Sheridan will result in a decrease (loss) in the sales volume for regional merchants of approximately \$49.2 million. The primary and secondary impacts will result in approximately a 3,100 person-year decrease in regional employment, and a decrease in regional income of approximately \$71.3 million.

Construction Economic Impacts. All construction impacts will occur during the construction period of 1991 through 1993. The total primary and secondary impacts of realignment-associated construction will result in the regional sales volume increasing by approximately \$6.0 million, regional employment increasing by approximately 80 person-years, and regional personal income increasing by approximately \$1.7 million.

One-Time Expenditure Economic Impacts. All one-time expenditure impacts will occur during the period of 1991 through 1993. The total primary and secondary impacts of realignment-associated one-time expenditures will result in regional sales volume increasing by approximately \$11.9 million, regional employment increasing by approximately 100 person-years, and regional personal income increasing by \$1.5 million.

Summary of Economic Impacts. All actions at Fort Sheridan are expected to decrease regional sales volume by \$31.3 million, decrease regional employment by approximately 3,000 person-years, and decrease regional income by approximately \$68.0 million. To a great extent, the final significance of the action on the local economy is dependent upon the actual reuse of the property. Due to the general nature of current reuse concepts, and the uncertainty of reuse time schedules, no attempt has been made at this point to quantify the beneficial economic impacts of reuse. However, the reuse of Fort Sheridan is expected to have an offsetting beneficial impact.

The expected changes in regional sales volume, employment, income, and population within the Fort Sheridan area represent 0.3%, 1.1%, 0.6%, and 1.6% of their 1987 levels, respectively. The significance of these impacts may be evaluated by a variety of criteria. Significance in the SEA Team analysis was viewed in terms of the overall change in regional conditions. Significance was

also determined by gauging the economic resiliency of the region in terms of threshold values representing the maximum of historic variation (the Rational Threshold Value method) and by evaluating the "normal" fluctuations experienced by the region (the Forecast Significance of Impacts procedure). These methods compare the impacts of a proposed action of the historic fluctuations experienced by the region. Applying these methods, it was concluded that of the four major impact areas evaluated (sales volume, employment, income and population) the population variable is the only one that will experience a degree of change that may be significant. The details of those methods and a table exhibiting criteria for the testing of significance are included in the referenced SEA Team report.

SC.4.8.6 Housing

The closure action at Fort Sheridan will cause 496 on-post housing units to be vacated, and will potentially place approximately 2,100 off-post housing units (35% owner-occupied units and 65% renter-occupied units) on the market. The closure of Fort Sheridan is anticipated to occur over several years, and therefore the off-post housing units will become available on the market over time. This should allow for a normal absorption rate given the size and vitality of the regional housing market.

SECTION SR - FORT SHERIDAN REUSE ALTERNATIVES

SR.4.2 Mission/Functional Activities (Environmental Consequences)

As discussed in Chapters 1 and 2, the only remaining military mission at Fort Sheridan after the closure/realignment action will be the continued support of the U.S. Army Reserve operations. The Reserve Component Area will operate independently of the area of Fort Sheridan made available for reuse, therefore the military mission or activities conducted will not be directly affected by any of the reuse alternatives described in Chapter 2.

Certain reuse options may result in indirect impacts in that incompatible adjacent land uses may require landscape screening or other mitigative action within Reserve Component Area boundaries. However, this should be minimal since new uses should be developed with full knowledge and consideration of ongoing reserve activities.

SR.4.3 Physical Environment (Environmental Consequences)

SR.4.3.1 Climate

The reuse of the Fort Sheridan installation will have no impact on the local climate.

SR.4.3.2 Topography

Each of the three reuse alternatives (Resort Conference Center/Residential Use, Mixed Use, and Residential Use) is likely to involve some new construction and some demolition of existing facilities. Any construction of new facilities or demolition of existing facilities will result in a reconfiguration of surface contours and therefore have some impacts on the topography. Related negative impacts will be minimized by strict compliance with storm drainage and erosion control regulations as they relate to revisions of topographic features. Topographic constraints imposed by the existing deep ravines which traverse the property, coupled with requirements for continued protection of existing natural areas and the Lake Michigan shoreline should restrict new construction to existing open areas or to areas previously developed.

SR.4.3.3 Geology and Mineral Resources

The reuse of Fort Sheridan is not geologically constrained and no significant impacts to geology or mineral resources will occur as a result of any of the planned reuse alternatives.

SR.4.3.4 Soils

Potential impacts to soils resulting from reuse alternatives consist primarily of erosion during the construction of new facilities or the demolition of existing facilities. Regrading of the area or excavations for new structures and demolition of existing facilities will expose the soil to the

eroding effects of wind and stormwater. Because the soils in the area of probable construction and demolition activities are Morely silt loams with relatively flat slopes, the erosion potential is low. Potential erosion impacts will be minimized by adherence to all applicable erosion control and stormwater management regulations and guidelines.

The Resort Conference Center/Residential Use, and the Mixed Use alternatives are likely to result in a higher level of soil disturbance than the Residential Use alternative, especially if these concepts are designed to obtain a maximum economic return on investment. Likely activities include construction of new buildings, parking lots, roads and other supporting developments.

SR.4.3.5 Air Resources

Potential construction and demolition activities associated with any reuse alternative will result in short-term air quality impacts due to dust and operation of construction equipment. Demolition of existing buildings also has the potential to disturb asbestos. However, all asbestos materials will be identified and dealt with in an appropriate manner through the IRP process discussed in other sections of this document.

The implementation of the reuse alternatives defined in Chapter 2 will return an unknown amount of motorized vehicle traffic to the area. This traffic increase will offset some of the air quality benefits derived from base closure. However, the proposed reuse alternatives would not generate air quality impacts any greater than experienced under existing conditions, and no significant ambient air impact is expected.

SR.4.4 **Water Resources** (Environmental Consequences)

SR.4.4.1 Groundwater

Groundwater use is not anticipated for any of the reuse alternatives. Consequently, the reuse alternatives will not influence groundwater quantities. Reuse alternatives that result in construction of additional buildings and related infrastructure will reduce the soil area available for groundwater recharge. However, considering that most of the installation has already been developed, no significant impacts are anticipated. Similarly groundwater quality should not be affected by any of the reuse alternatives. Hazardous materials/wastes are not associated with any of the alternatives. Although some accumulation of surface water contaminants is expected as a result of motorized vehicle use (including accidental spills during construction) these contaminants are not expected to leach into the groundwater due to low soil permeability rates.

SR.4.4.2 Surface Water

Potential short term increases in sedimentation and pollutant loading in ravines of the installation may occur during the construction phase of each reuse alternative. The magnitude and duration of this impact is dependent on the location, timing and extent of construction activities. It is assumed that all reuse activities will be planned to minimize environmental damage, and that construction activities will be planned and monitored to control soil erosion in accordance with all applicable regulations.

SR.4.4.3 Floodplains/Wetlands

Each of the proposed reuse alternatives incorporates a residential use concept with varying degrees of additional uses depending on the specific alternative. While these concepts will undoubtedly result in construction, demolition and/or improvement of buildings, none of these alternatives are expected to have a significant negative impact on floodplain and wetland resources. Varying degrees of indirect impacts may occur including temporary increases in erosion and sedimentation within on-site ravines (potentially affecting the floodplains along Lake Michigan). However, these potential impacts are expected to be relatively short term. Reuse alternatives are therefore, not expected to have a significant impact on floodplains.

Potential impacts to these resources may be minimized by implementing erosion and sedimentation controls and by establishing buffer zones around wetlands, floodplains, ravines and natural areas.

Wetland resources of the project area may potentially be enhanced with each reuse concept through enhanced and improved golf course design and a higher level of landscape enhancements. Small wetlands incorporated into the reuse site could add to the wildlife value of the site and provide opportunities for runoff control and landscape diversification.

SR.4.5 **Biological Resources (Environmental Consequences)**

SR.4.5.1 Wildlife Resources

Impacts to wildlife from any of the reuse alternatives will be directly associated with the degree of development and habitat modification associated with reuse. In general, the important wildlife habitats at the site are the undeveloped ravines, bluff and shoreline areas. Each of the reuse alternatives is based on the assumption that these areas will be preserved. This protective action may be ensured by transferring ownership of these natural areas to the U.S. Fish and Wildlife Service or some other appropriate agency, or through the use of deed restrictions on the development of these areas.

The reuse of Fort Sheridan will also prevent an indirect threat to the sensitive habitat areas in that the protection aspects provided by the military presence will be lost. The absence of the military, coupled with the natural attractiveness of these areas may be an invitation for new civilian residents in the area to use and degrade these resources. Stepped up civil law enforcement, a community education program, or ownership/management by a natural resource agency are a few of the techniques that could be used to mitigate these problems. Assuming that an appropriate combination of these techniques is applied, no significant impacts on the biological community are expected to occur.

Impacts to the fishery (Lake Michigan and the fish pond) from reuse would be directly associated with the degree of impact on local lake water quality. In order to ensure that no negative impacts occur from any reuse alternative, development in or near the highly erodible ravines, bluffs or shoreline should not be allowed.

Development plans should incorporate erosion and sedimentation control procedures and should provide for the establishment of buffer zones around sensitive habitats. Additionally, water treatment and stormwater systems must be designed to effectively accommodate any reuse needs and not deteriorate local water quality.

SR.4.5.2 Plant Resources

Each of the proposed reuse alternative concepts assumes the preservation and protection of the natural areas on the installation. The preclusion of development within these areas or within surrounding buffer areas would effectively minimize impacts to these plant resources. In addition, no significant impact is anticipated to other plant resources (i.e., horticultural plantings) as destruction of some areas will be effectively offset by new plantings after construction is completed. Potential protection measures for the sensitive plant habitat areas at Fort Sheridan (ravines, bluffs and shoreline) are the same as those discussed in the previous section on wildlife resources.

SR.4.5.3 Threatened and Endangered Species

As discussed in Sections S.4.5.1 and S.4.5.2, each of the Fort Sheridan reuse alternatives incorporates the preservation of the site's natural areas. It is conceivable however, that the resort/residential use concept will encourage more passive beachfront recreation. Special protective measures (e.g., the establishment of buffer zones and the stabilization of bluffs) should be taken to minimize disturbance to these areas. Further protection may be accomplished by granting title to these natural areas to an appropriate conservation agency, or by placing deed restrictions on future title transfers precluding development in these areas. In addition, consideration should also be given to the dedication of the two designated Illinois Natural Areas (INAI #119 and #134) as State Nature Preserves prior to or simultaneous with the decommissioning of Fort Sheridan.

No impacts to any other federal or state listed species (or their critical habitats) are expected as these species (Peregrine falcon, Forster's tern, common tern, veery, and piping plover) are only transient species observed during migration periods.

SR.4.6 Cultural Resources (Environmental Consequences)

SR.4.6.1 Native American Values

Earlier investigations have indicated that there are no Native American cultural values associated with Fort Sheridan. Therefore the reuse alternatives are not expected to affect such values.

SR.4.6.2 Archaeological Resources

Previous archaeological surveys at Fort Sheridan indicate very little potential for undetected archaeological resources. A very small area at the north end of the installation on the eastern edge of the parade ground (Figure 3S-5) is recommended for further survey. The Illinois State

Historic Preservation Officer (SHPO) will be contacted and an appropriate survey conducted. If this survey reveals the presence of archaeological resources eligible for inclusion in the National Register of Historic Places, further consultation will be undertaken pursuant to Section 106 of the National Historic Preservation Act and the Programmatic Agreement executed February 5, 1990 by the Army, the Advisory Council on Historic Preservation (Council) and the National Conference of State Historic Preservation Officers to establish means of preserving such resources, and agreed-upon preservation mechanisms will be implemented.

SR.4.6.3 Architectural Resources

Disposal of the real estate at Fort Sheridan will result in a change of ownership and usage of the property. Because of these changes, the potential for adaptation of or modifications to the buildings within the historic district increases. Therefore, it will be necessary that adequate measures be taken prior to the disposal of Fort Sheridan to ensure the proper maintenance and use of the historic properties and to mitigate potential adverse impacts.

The Fort Sheridan Historic District is a National Historic Landmark (NHL). Pursuant to Section 110(f) of the National Historic Preservation Act (NHPA), landmarks receive a higher degree of protection from federal actions than do other properties listed in, or eligible for listing in, the National Register. Section 110(f) contains three basic requirements. First, if a federal agency affects a NHL, the agency must determine whether the effect is both "direct" and "adverse". If it is both, the agency must, to the maximum extent possible, undertake special planning or other actions to minimize harm to the property. This planning requirement is stronger than the protection of the normal NHPA Section 106 process, which at a minimum, also applies.

For Fort Sheridan, virtually any reuse of the historic district would be considered a "direct" effect, either beneficial or adverse. The evaluation of effect focuses on the characteristics that qualified it for the register, including the property's historic, architectural, archaeological, or cultural significance.

"Adverse", (36 C.F.R. 800.3(b)) effects include (a) demolition of all or part of a property, (b) isolation of a property from its surrounding environment, (c) introduction of visual, audible or atmospheric elements that are out character with the property or alter its setting, (d) neglect that results in deterioration or destruction, and (e) transfer or sale of a property without adequate restrictions to ensure its preservation or maintenance, such as conveyance without easements to protect the element that qualified the property for the Register.

Each of the three proposed alternatives acknowledges the importance of the Fort Sheridan historic district and suggests its role as a focal point in reuse development plans. The proposed alternative uses are at this time conceptual in nature, but constitute the first steps in the process of planning required by Section 110(f) of NHPA. As plans become more specific, they will be coordinated with the Illinois SHPO and the Advisory Council on Historic Preservation in accordance with the Programmatic Agreement (Appendix B), and will serve as the basis for

seeking agreement on specific ways to avoid, reduce, or mitigate any adverse effects that would otherwise result from reuse.

SR.4.7 Human Environment (Environmental Consequences)

SR.4.7.1 Visual and Aesthetic Values

The three reuse alternatives previously described will be compatible with surrounding land uses and similar to the existing land use pattern. New construction within and adjacent to the historic district should also be architecturally compatible with the exteriors of existing historic structures. The reuse of existing facilities will have a positive visual impact in that the continued preservation and maintenance of the area and the facilities will be ensured.

The visibility of the planned Reserve Component Area from all directions may have a negative visual impact. Minimization of this impact can be accomplished by the use of increased landscape plantings and/or decorative fence buffers. New construction will occur in open and previously developed areas which will not significantly affect the vistas of Lake Michigan or the undisturbed ravine and natural areas.

Existing temporary buildings which are not particularly visually pleasant will most likely be demolished, renovated, and/or replaced by new facilities. These actions will contribute to an improvement of the aesthetic quality of the area.

SR.4.7.2 Noise and Odor

Noise. The reuse alternatives are at this time of a conceptual nature, therefore it is impossible to predict specific noise levels and associated impacts resulting from the reuse of Fort Sheridan. Each of the three alternatives will generate traffic noise at different levels depending upon the density of the development, the developed land use, and the distribution of different land use areas within the Fort Sheridan boundaries. It is anticipated that any reuse of the installation will generate traffic at volumes comparable or less than those currently created by the installation. Any increases in traffic volumes are expected to be minimal and therefore impacts resulting from such increase would be negligible when compared to the current noise levels of the area.

It is unlikely that the airfield (helipad) would remain in use under any of the three reuse alternatives, therefore the elimination of air traffic would result in a positive impact on noise levels.

Noise generated by new construction and demolition or renovation of existing facilities will create a minor increase in noise levels. This noise will be temporary however, and therefore not considered significant.

Odor. Odor and other impacts from landfill gases at Landfill No. 7 will be evaluated by the previously described IRP process. Residential, commercial, office, recreational, institutional, and other land uses proposed under the three reuse alternatives will not result in odor-related impacts.

SR.4.7.3 Hazardous Material Sites

The previously discussed IRP process (See Section 1.6.3) will address all existing hazardous/toxic waste related problems and issues summarized in Chapter 3 (Section S.3.7.3) including ammunition storage and disposal sites. The proposed reuse alternatives should not produce any significant amounts of hazardous or toxic materials other than those normally generated by residential, office, commercial or institutional facilities. Under the mixed use alternative, certain types of research facilities could possibly generate such materials, however any generation of hazardous/toxic materials will be subject to current federal and state regulations for handling and disposal.

SR.4.7.4 Traffic and Transportation

Many of the present military residents live and work on site with no need for daily commutes. The Residential Use reuse alternative could result in a considerable increase in the number of residents in the area, and could have some negative impact on traffic conditions if these residents were to commute to locations outside the area.

The other two reuse alternatives (Resort Conference Center/Residential Use and Mixed Use) would result in a mix of on-site residents, as well as the creation of new jobs that would require commuting to and from the site. However, it is not likely that either one of these alternatives would generate more jobs than current Fort Sheridan operations. Therefore, related traffic impacts are not anticipated to exceed existing conditions.

Detailed traffic analyses will need to be prepared as part of any final reuse alternatives. These studies will identify any specific improvements that may be required to reduce or eliminate any undesirable traffic impacts.

SR.4.7.5 Utility Systems

The existing utility systems for Fort Sheridan are known to be in reasonably good condition and it is anticipated that the systems will remain in place for reuse after disposal of the property. Preventive maintenance will be performed by the U.S. Army during the caretaker status period to minimize deterioration of the systems. After disposal of the property, it is assumed that responsibility for system operation and maintenance will rest with the new owners and/or private utility companies and controlling municipalities.

Water Systems. As previously discussed, it is likely that the Reserve Component Area will receive water from adjacent municipalities after closure of the installation. As reuse development occurs, appropriate sections of the water distribution and storage system can be reactivated for service as required. Some water line extensions, relocations and/or revisions may be required depending upon the type and location of adaptive reuse and new development. Installation of water meters for individual buildings and/or users may also be required. The adjacent municipalities can provide up to 1.4 MGD. This amount of water will support an effective population of approximately 9,300. Effective population is defined as the product of the number

of military and civilian personnel (including dependents) multiplied by the percentage of a 24-hour day spent on the installation. Should the effective population associated with any of the reuse alternatives exceed 9,300, other supply sources would be required. The most likely source would be the existing treatment and pumping facility at Fort Sheridan. Reactivation of this facility could provide water for an effective population in excess of 7,200. It is unlikely that development resulting from any of the reuse alternatives would produce a population exceeding the supply capability of the two existing sources. The existing water storage facilities however, are only capable of supporting an effective population of 4,000. Reuse development exceeding this amount may require the construction of additional storage facilities.

Wastewater Systems. Support capabilities of the existing collection system and lift station are estimated at effective populations of 8,700 and 6,600 respectively. As development occurs under any of the three described reuse alternatives, collection system extensions, relocations, and/or revisions may be required. Lift station facilities may require replacement of pumps to ensure efficient operation. The existing agreement between the North Shore Sanitary Sewer District (NSSD) and Fort Sheridan provides for treatment of not greater than 2.6 MGD. This indicates that the NSSD facilities are capable of handling sewage flows from any of the three reuse alternatives. Any additional off-site residential population created by reuse of the installation will be dispersed throughout the region and impacts on other sewage treatment facilities would be insignificant.

Storm Drainage Systems. The existing Fort Sheridan storm drainage system can be adapted for use under the three broad reuse alternatives described in Chapter 2. The system will however, require revisions and replacement of existing structures with facilities large enough to accommodate increased runoff resulting from new construction. Proper design of revisions and replacements combined with adherence to current storm drainage regulations will eliminate potential environmental damage from increased stormwater runoff. Special precautions including retention and/or detention of storm water flows may also be required, especially in areas of development near the Lake Michigan shoreline.

Heating and Fuel Systems. The supply of natural gas to Fort Sheridan is virtually unlimited, therefore any increase in demand resulting from reuse development can be adequately met. The existing natural gas distribution system serves individual heating units in most existing buildings except the 60 to 65 buildings served by the Central Heating Plant (Bldg. 40) and some smaller and temporary buildings with fuel oil fired units. If the Central Plant is not reactivated for service under the reuse alternatives, buildings now heated by this system will require the installation of individual gas-fired systems and connection to the distribution system. As reuse development occurs, extensions, relocations, and revisions of the distribution system will be required. Installation of gas meters for individual units and/or users may be also required.

Electrical System. The support capability of the existing electrical system is estimated at an effective population of 7,100. If proposed reuse alternative effective populations exceed that amount, additional transformer capacity will be required. As new construction and renovation of existing buildings and facilities is completed under any of the reuse alternatives, system

upgrades, revisions and relocations will be necessary. As with other utility systems, meters for individual users and/or units may also need to be installed.

SR.4.7.6 Solid Waste Disposal

As previously discussed, present landfill issues will be addressed by the on-going IRP process. Solid waste generated by facilities associated with reuse will be collected by licensed private contractors or by controlling municipalities and disposed of in regional landfills outside the installation. Should the reuse effective population exceed the current population of Fort Sheridan, there may be an increase in waste generation. Any increase will impact the remaining life of the receiving landfill. The impact will be insignificant however, because the total amount of waste that would be generated by any of the reuse alternatives would constitute a very small percentage of the total waste received by area landfills. Reuse alternatives may include the demolition of existing buildings. This demolition will generate a temporary increase in the volume of waste requiring disposal. The total volume of demolition-related waste will be insignificant however, in comparison to the total volume generated in the region and will not significantly affect the life of area landfills.

SR.4.8 Socioeconomic Characteristics (Environmental Consequences)

SR.4.8.1 Introduction

Given the general nature of the reuse alternatives considered in this EIS, it is not possible to develop a detailed or quantified analysis of socioeconomic impacts similar to the data provided for the Fort Sheridan closure action, and realignment actions at Fort Benjamin Harrison and Fort M^cCoy. However, the following sections provide a general discussion of the types of impacts that could be expected to occur as a result of the reuse of Fort Sheridan excess property.

SR.4.8.2 Land Use and Zoning

The three reuse alternatives evaluated in this EIS are each generally compatible with established land use patterns adjacent to the installation, and current zoning requirements within the installation (as discussed in Chapter 3, Section S.3.8.3). Therefore, no significant adverse impacts on adjacent land use or zoning requirements are anticipated to occur. Development of any of the three reuse alternatives will require careful site planning and buffers along the Reserve Component Area boundaries.

SR.4.8.3 Community Facilities

The Residential Use alternative would have the greatest impact on community services since it would result in a relatively high concentration of new civilian residents, with related community facility and service needs. However, it is likely that jurisdictional responsibility for these new residents would be divided among the adjacent communities, and that the impacts to the area as a whole would not be significant.

Implementation of the Resort Conference Center/Residential or Mixed Use concepts would result in a lower number of on-site residents. Therefore, municipal service requirements would generally be reduced along with a related increase in service responsibilities on the institutional or commercial property owners.

SR.4.8.4 Population

Implementation of the Resort Conference Center/Residential Use alternative would provide a permanent population base on-post. This population base is dependent on the density of the residential development. Resort Conference Center uses will provide a transient population base on-post and could cause an increase in off-post population in the adjoining communities because of the available employment opportunity.

The Mixed Use alternative will only provide a permanent population base on-post if it includes a residential component. Other on-post population increases are considered transient, in that they are high during normal working hours and decrease substantially after working hours. Commercial uses developed as an integrated part of the Mixed Use alternative will generate population increases on-post on a daily basis. Off-post population can be anticipated to increase, as families move closer to work. The total increase in population is primarily dependent on the total amount of leasable square footage available.

The Residential Use alternative will substantially increase the on-post population. The amount of the increase is dependent upon the density of development. Off-post population is not anticipated to have any significant increase as a result of this alternative.

SR.4.8.5 Economy

The Resort Conference Center/Residential Use, and the Mixed Use alternatives have a high potential to increase the local tax base and provide new jobs. The degree of the increase is dependent upon the density and type of development. Additionally, there will be some economic development stimulated off-post by these two alternatives. The Residential Use alternative will result in positive economic impacts for area jurisdictions. However, the extent of this impact is not likely to equal the tax income that could be generated by the other two alternatives.

SR.4.8.6 Housing

The Residential Use alternative provides for the best use of existing on-post housing resources and also creates an opportunity to provide a full range of housing types and styles that are marketable in the area. However, this alternative could affect the existing housing market and the new housing market because of the size of the development. The impact on these housing markets could be lessened by phasing the development. The other two alternatives, (Resort Conference Center/Residential Use, and Mixed Use) are not anticipated to have any significant impact on the housing market in the surrounding area.

SECTION H - FORT BENJAMIN HARRISON REALIGNMENT ACTION

H.4.2 Mission/Functional Activities (Environmental Consequences)

The realignment action and subsequent transfer of military and civilian personnel as described in Chapter 1, will result in changes to the current mission and functional activities at Fort Benjamin Harrison. In addition to the existing mission indicated in Chapter 3, Fort Benjamin Harrison will also assume the installation support responsibilities of the Headquarters 4th Army and the U.S. Army Recruiting Command. Realignment of personnel from Fort Jackson to Fort Benjamin Harrison will result in additional mission responsibilities for Combat Service Support Advance Individual Training. The addition of the above described responsibilities will not adversely affect the capability of Fort Benjamin Harrison to fulfill existing mission requirements.

H.4.3 Physical Environment (Environmental Consequences)

H.4.3.1 Climate

Because the climates of Fort Benjamin Harrison and Fort Sheridan are comparable, no significant climate-induced impacts on transferred units or personnel are anticipated. Furthermore, the realignment action will not affect the local climate.

H.4.3.2 Topography

Impacts on the existing topography resulting from the realignment action consist of minor reconfiguration of surface contours in the areas of realignment construction projects described in Chapter 2. All construction will be within the existing cantonment area. The existing topography of the area is relatively flat and will remain so after construction, therefore the impacts are minimal. Impacts on the topography will also be minimized by adherence to applicable stormwater management and erosion control guidelines and regulations during the construction phase.

H.4.3.3 Geology and Mineral Resources

There are no geological constraints to the proposed action. No significant impacts to geologic or mineral resources will occur as a result of realignment.

H.4.3.4 Soils

Soils in the areas of realignment construction are primarily of the Crosby, Miami, and Brookston series which do have some erosion hazards and construction limitations. These deficiencies can be overcome through the use of appropriate construction techniques. The potential for soil erosion during construction will be minimized by application of accepted erosion control measures and by compliance with applicable guidelines and regulations. Because the units being transferred to Fort Benjamin Harrison are primarily administrative, there is little potential for increased risk of soil contamination by spills or unintended release of hazardous materials.

H.4.3.5 Air Resources

Several new structures will be erected to partially house the transferred functions, but stationary source emissions will not increase as a result of this activity. The working population at Fort Benjamin Harrison will increase approximately 14 percent, with a corresponding increase in motorized vehicle traffic on and near the base. However, the resulting increase in mobile source pollutant emissions will be minor. A significant air impact is not expected to occur.

H.4.4 **Water Resources** (Environmental Consequences)

H.4.4.1 Groundwater

In view of the availability of groundwater that is adequate for water supply (the glacial outwash aquifer is capable of supporting an additional pumpage of at least 57.5 MGD), it is evident that adequate water supply levels can be maintained through sound planning and development. Additional groundwater usage will result from the realignment action but required pumpage volumes are not expected to significantly affect groundwater supply. In addition, the construction of several new buildings (impervious surfaces) may result in minor reductions in aquifer recharge. The effect of these construction projects however, is expected to be negligible. Similarly, effective spill control plan implementation should provide for the safety of groundwater quality at the site.

H.4.4.2 Surface Water

Surface waters at Fort Benjamin Harrison include four major streams, three intermittent streams, three open ditches (with tributaries) and three man-made lakes. A fourth lake is planned in the future to increase fishing opportunities and decrease fishing pressure on the existing lakes.

Potential impacts associated with the transfer of personnel from Fort Sheridan to Fort Benjamin Harrison relate to runoff into surface waters, adequacy of the sewage treatment system and increased use of landfill facilities.

Minor impacts from surface water runoff into the streams on and off site will increase as a result of increased construction activities (short term impacts associated with siltation, etc), an increase in impermeable surfaces, and an increase in vehicle traffic. The amount of surface water runoff will increase to some extent whereas the quality will decrease as a result of these activities. The maintenance of green belts adjacent to the streams and ditches at the site will however, aid in maintaining surface water quality.

The construction of new buildings and an increase of personnel on the site will create increased demands on the waste water treatment systems. During routine operation periods this increase will have little impact as the base has been connected to the regional sewage system since 1980.

Associated with the increase in personnel will be the increased use of the on-site landfills. Good landfill operation practices and runoff control designs will minimize water runoff at the landfill.

H.4.4.3. Floodplains/Wetlands

Realignment actions from Fort Sheridan to Fort Benjamin Harrison will require the construction of several support facility projects. These projects (headquarters facility, commissary expansion, gymnasium, etc.) are all located on upland areas well outside of the limits of any regulatory floodplain or wetlands mapped by the National Wetland Inventory (NWI). No direct encroachments on floodplains or wetlands are expected.

In addition, because each of these projects are quite distant from NWI wetlands (greater than 1000 feet) no indirect impacts associated with the construction of these facilities are expected. For example, surface water runoff, sedimentation, and inadvertent damage due to heavy equipment use are examples of this type of impact.

Minor construction projects that may be required as a result of the proposed realignment include the installation and maintenance of utility and/or sewer lines. Minor increases in stream sedimentation, siltation and erosion may result, depending on the timing, location and extent of the activity. Potential impacts associated with these activities can be reduced by the proper scheduling of construction activities and the implementation of erosion and sedimentation control procedures.

Some off-post housing construction is expected as a result of the proposed realignment. Construction of these new residences may potentially affect local floodplains and wetlands as a result of siltation and sedimentation processes. Again, these effects will largely depend on the duration, timing and location of construction activities and may be controlled by local contractors by adjusting the timing of earth moving activities and by using proper erosion and sedimentation controls subject to local and state regulations.

H.4.5 **Biological Resources** (Environmental Consequences)

H.4.5.1 Wildlife Resources

Construction activities required at Fort Benjamin Harrison under the proposed realignment alternatives, would require the disturbance of biota during the construction of new buildings and attendant parking and landscaping to house functions transferred from Fort Sheridan and Fort Jackson. Construction activities will take place in previously disturbed sites within the cantonment area and will, therefore, result in only minimal displacement of natural fauna. New development will be undertaken in such a manner as to prevent any disturbance to sensitive habitats (i.e., heron rookeries, quality deer habitat, etc.).

Adverse effects that could be expected to occur to aquatic life are related directly to degradation of water quality in impoundments and streams. Minor degradation in the quality of surface water resources may be expected in association with construction projects on and off the base (on-site construction and potential new housing construction in nearby residential areas). Short term impacts on aquatic resources (fish and invertebrates) may therefore be expected in proportion to effects on water quality.

H.4.5.2 Plant Resources

Plant resources of the Fort Benjamin Harrison project area are not expected to be impacted by the realignment action. Natural plant resources consisting of mixed deciduous woodlands and open areas are located to the west, north and northeast of the cantonment area. Because all of the construction projects associated with the realignment are within existing development areas, no impacts to these resources are anticipated.

Some impacts to horticultural plantings and landscaped areas are expected during the construction phase. However, areas disturbed around constructed buildings will be re-landscaped following the construction phase.

H.4.5.3 Threatened and Endangered Species

The riparian habitat along Fall Creek is known to support an Indiana bat nursery colony that in 1983 was estimated at 526 individuals (USFWS letter from Mr. David Hudak dated March 22, 1984). No impacts to this federally listed species or its designated critical habitat (caves) are anticipated as proposed development activities at Fort Benjamin Harrison are located in upland non-riparian areas. However, minor activities such as the installation or upgrading of utility/sewer lines may affect small areas of riparian habitat. Potential effects to the Indiana bat will be minimized by avoiding the clearing of potential nursery trees and by restricting clearing activities to the period between October and April. Another potential impact to the Indiana bat relates to the use of pesticides and insecticides. However no significant impacts to the Indiana bat are expected as no significant increase in pesticide and chemical use is planned.

As discussed in Section H.3.5.3, with the exception of the Indiana bat, no rare, threatened or endangered species are known to occur on the installation. In addition, there are no known sensitive habitats such as prairie remnants that may potentially support species such as Mead's milkweed or scurf pea (both extirpated in the state). Intermittent use of some areas by migratory species such as the peregrine falcon may be expected. Construction and site disturbance activities will be confined to developed areas. Therefore, no impacts to any threatened or endangered species are expected.

H.4.6 Cultural Resources (Environmental Consequences)

H.4.6.1 Native American Values

Earlier investigations have indicated that there are no Native American values associated with Fort Benjamin Harrison. Thus, realignment action is not expected to affect such values.

H.4.6.2 Archaeological Resources

The locations of the proposed General Officers Quarters, Child Development Center, Gymnasium, and Enlisted Personnel Barracks have been surveyed and found to contain no archaeological resources. The locations of the Headquarters Facility, the Commissary Expansion, the Substation

Upgrade and the Hospital Addition have not yet been surveyed. The Indiana State Historic Preservation Officer (SHPO) will be contacted and an appropriate survey conducted. If this survey reveals the presence of archaeological resources eligible for inclusion in the National Register of Historic Places, further consultation will be undertaken pursuant to Section 106 of the National Historic Preservation Act and the Base Realignment and Closure Programmatic Agreement (See Appendix B) to establish means of preserving such resources, and agreed-upon preservation mechanisms will be implemented.

H.4.6.3 Architectural Resources

Planned realignment construction improvements should follow the guidelines previously established for historic preservation at Fort Benjamin Harrison such as the Mariani and Associates, study (1987) and the McGillem and Associates plan (1989). The planned modifications will be evaluated on a site specific basis to ensure conformance with these studies and to achieve compliance with Section 106 of the National Historic Preservation Act. This will be accomplished as detailed work plans are developed.

H.4.7 **Human Environment (Environmental Consequences)**

H.4.7.1 Visual and Aesthetic Values

The planned construction of a new Headquarters facility near existing installation entrances will reinforce one of Fort Benjamin Harrison's distinct images, administrative function. The other major construction projects will occur within the cantonment area and will blend with the existing architectural styles and land use patterns. The undeveloped areas in the northern portion of the installation, which provide an important visual and aesthetic feature, will be unaffected by the realignment actions.

H.4.7.2 Noise and Odor

Noise. A modest increase in noise levels will occur as a result of the increase in vehicular traffic at Fort Benjamin Harrison. This increase in noise is not expected to be significant. A slight increase in noise may also occur due to a small increase in rotary-wing aircraft traffic at the helipad near the Major General Emmett J. Bean Center. Operations at this helipad are very infrequent, resulting in minor noise impact. No increase is expected in firing range activities. A temporary increase in construction noise will occur during construction of new structures and demolition or renovation of existing facilities, but this noise will be limited to daytime hours and will not be detectable beyond the installation boundaries.

Odor. All odor producing facilities at Fort Benjamin Harrison are remotely located from on and off-post residential, commercial, or administrative areas. Any increase in odor levels created by the realignment action will be negligible.

H.4.7.3 Hazardous Material Sites

Construction Site Screening. Current Army guidelines require that all proposed construction sites be screened for potential contamination and categorized according to the degree of risk they pose to human health and safety. Prior to construction of realignment projects, all sites will be evaluated and categorized, and appropriate remediation measures will be accomplished on any sites determined to be contaminated.

Pesticides, Insecticides, Herbicides, Fungicides and Other Chemicals. No significant increase in the use of these materials will occur as a result of the realignment action, therefore no significant impacts are anticipated. Applicable regulations, procedures and guidelines for the storage, handling and use of these chemicals will be followed.

PCB Transformers. Continued inspection and testing of transformers will provide protection of the public from PCB contamination. As described in Chapter 3, all known PCB transformers have been removed or retrofitted. Realignment actions will not significantly impact the potential for PCB contamination.

Asbestos. As indicated in Chapter 3 (Section H.3.7.3), asbestos related problems are being addressed. Any detection of asbestos material during realignment renovation, demolition or construction activities will be immediately reported and dealt with in accordance with all applicable regulations. Construction of new realignment facilities will not involve the use of friable asbestos construction materials, therefore no potential for additional risk will be created by the realignment action.

Explosions and Ammunition Storage. Realignment actions are not expected to increase the amount of explosives used or ammunition stored, therefore no additional risk from accidental explosion or release will result.

Petroleum, Oils, and Lubricants Storage. Due to the increased population and subsequent increase in vehicles resulting from the actions, the volume of petroleum-based and non-petroleum based materials used, handled, and stored will also increase slightly. The potential for accidental spills or releases is thereby increased, but not significantly. The current practice of handling and disposal through the use of a recycling contractor greatly reduces the generation potential and risk for some of these types of materials. As stated in Section H.3.7.3, remedial measures are currently in progress to remove or repair 14 existing storage tanks.

H.4.7.4 Traffic and Transportation

Traffic Volumes. Assuming the increase of personnel at the installation will be approximately 14 percent, it can be assumed that traffic volumes on the roadways leading to the installation will

increase by a similar factor. Using this assumption, trips under the realignment action will be distributed to the five major entry points as follows:

<u>Roadway</u>	<u>% of Total</u>	<u>Daily Two-Way Volumes</u>
Lee Road	4	1,630
Post Road (Green Avenue)	39	15,930
Shafter Road	11	4,500
56th Street (Aultman Road)	37	15,110
59th Street	<u>9</u>	<u>3,680</u>
Total	100	40,850

This total is an increase of approximately 5,000 vehicles trips over current conditions.

Interior Roads and Traffic Circulation Patterns. The proposed realignment action should not have a significant impact on the interior roadways or overall traffic circulation patterns in general. However, due to the peaking nature of this increased activity, isolated incidents of congestion will occur in both the morning and evening peak periods when the new personnel are entering and departing the installation for work activities. In order to quantify this impact, it may be necessary to prepare a new Traffic Engineering Study to determine specific internal improvements required to accommodate increased vehicular activity.

Regional Roadway Capacities. Outside of the installation boundaries, the Indianapolis-Marion County Department of Metropolitan Development, Division of Planning has indicated that U.S. 36 (Pendleton Pike) east of the Post Road (Green Avenue) intersection is operating at level of service (LOS) E or F, or at the theoretical capacity for the roadway. A previous Traffic Engineering Study (U.S. Army Corps of Engineers, 1987b) indicated that the green signal cycle at this intersection should be modified to alleviate then current afternoon peak period congestion. With the introduction of approximately 1,945 new vehicle trips per day at this location (15,930 projected minus 13,985 existing) it is likely that the congestion levels on U.S. 36 (Pendleton Pike) will be increased, especially east of the Post Road (Green Avenue) intersection resulting in the LOS east of the intersection deteriorating to an E or F level.

A similar increase in traffic congestion is also likely to occur on U.S. 36 between Franklin Road and I-465, and along Franklin Road both north and south of U.S. 36. Degradation of LOS can also be anticipated along I-465 north and south of the U.S. 36 interchange.

A detailed Traffic Engineering Study will be prepared by the Military Traffic Management Command Transportation Engineering Agency to update available data, determine directional flows to the installation, determine traffic volumes at installation entrances and along the major roadway and intersections near the installation, identify capacity problems, and develop specific recommendations to alleviate the problems. This new study will be available prior to the release of the Final EIS.

Other Transportation Modes. None of the other transportation modes will be severely impacted by the realignment action with the possible exception of the public transit system. The transit

system may experience an increase in patronage on the two routes that presently serve the installation. However, this increase is not expected to overload the existing system.

H.4.7.5 Utility Systems

The proposed realignment action at Fort Benjamin Harrison will result in an increased demand on existing utility systems. The effective population of the installation is expected to increase from the current level of 6,711 to approximately 7,500 after realignment. Effective population is defined as the product of the number of military and civilian personnel (including dependents) multiplied by the percentage of a 24-hour day spent on the installation. The increase in population and the construction of new buildings and facilities will require utility upgrades, revisions, and extensions. A summary of probable impacts on the individual systems is provided in the following sub-sections.

Water System. The realignment action will result in an increase of approximately 850 to the Fort Benjamin Harrison existing effective population. Based upon standard guidelines for military planning, the average daily demand is 150 gallons per capita per day (gpcd). The total daily demand will therefore increase by 0.12 million gallons. In addition to an increase in domestic demand, some additional industrial demand will be associated with boiler make-up water at the central heating plant. Adequate excess capacities to handle increases of this magnitude for the water supply and distribution systems have been identified in previous studies including the 1986 Mobilization Master Plan. Existing excess water treatment capacity is available for increased demands resulting from the realignment action (See Section H.3.7.5).

Realignment construction projects described in Chapter 2 will also require service extensions of existing distribution lines. The realignment action will also result in an increase in the population of off-post areas. This increase is expected to be dispersed throughout the region such that no significant impact to off-post water systems will occur. As indicated in Section H.3.7.5, off-post water systems have considerable excess capability and are capable of expanding facilities as required to meet future demands.

Wastewater System. Standard military planning guidance suggests a per capita sewage flow of 100 gallons per day. Assuming that the contribution to the installation will increase by 100 gpcd for the increase in effective population, the total increase in daily sewage contribution will be 0.083 million gallons. This increase is within the limits of the current agreement with NSSD (See H.3.7.5). The existing collection system and lift stations have adequate excess capacities to accommodate increased flows.

The total increased flow to the Indianapolis Regional Sewer System (IRSS) treatment facilities from off-post will be insignificant when compared to the total volume now treated by the facility. Also the increase in off-post population is expected to be dispersed such that no segment of the area sewer systems are adversely affected.

Storm Drainage System. The existing storm drainage system is in good condition and capable of supporting increases in impervious area and subsequent stormwater runoff generated by the realignment construction activities. Each realignment project will include appropriate new storm drainage structures or revisions to existing facilities.

Heating and Fuel Systems. Realignment construction projects will result in an additional area of building square footage to be heated by the central plant and by natural gas fired, self-contained units. Based upon the energy analysis of realignment projects prepared by the Directorate of Installation Support in 1989, the realignment actions could result in the use of an additional 65 million cubic feet per year of natural gas.

The central plant, steam distribution system, and natural gas distribution systems all have adequate excess capacities for realignment action impacts. The distribution systems will require extension of lines and other minor revisions to service new buildings.

Electrical System. Previous studies of the installation electrical system indicate that the availability of electrical power from Indianapolis Power and Light Company is more than adequate for demand increases much larger than those associated with the realignment action. The aforementioned energy analysis indicated that the increase in electrical demand could be as high as 4,952,000 KWH per year. Existing transformer and feeder line capacities however, are not capable of supporting additional realignment related demands. These deficiencies will be eliminated by the completion of the substation upgrade project described in Chapter 2. Service line and other electrical improvements will also be made as part of the realignment construction projects.

H.4.7.6 Solid Waste Disposal

As indicated in Section H.3.7.6, the remaining life of the existing landfill is estimated at two to three years (depending upon the amount of recycling). Assuming that the increase in effective population causes the rate of disposal to rise proportionally, the remaining life of the landfill will be reduced by approximately two to four months. Additionally, demolition related waste generated by the realignment action will further reduce the existing landfill life. The previously referenced study (See Section H.3.7.6) recommended contracting refuse collection and disposal for transport to the Indianapolis Resource Recovery Facility for incineration.

H.4.8 Socioeconomic Characteristics (Environmental Consequences)

H.4.8.1 Introduction

Evaluation of socioeconomic impacts is directly related to an understanding of the number of personnel authorizations to be transferred to Fort Benjamin Harrison. The specific number of students and civilian and military personnel and their associated dependents continue to be subject to further evaluation and refinement. It should be noted that the personnel authorizations referenced in the Socioeconomic Effects Analysis (SEA) prepared to support the EIS by the

Institute for Water Resources (IWR, 1989) were based on the personnel authorization migration information shown in Table 1-1 in Chapter 1.

H.4.8.2 Land Use and Zoning

Existing land uses and zoning at Fort Benjamin Harrison are not anticipated to change as a result of the realignment. New facilities proposed for realignment will be located in compatible land use areas. No negative long term impacts are anticipated as a result of these improvements. Temporary or short term impacts will be associated with construction activities.

H.4.8.3 Community Facilities

The realignment action will not have any significant impact on community health care facilities. Ten non-Federal hospitals are located in the Indianapolis area and have a combined average vacancy of approximately 24 percent at any point in time.

Incoming school children will be distributed over a relatively large area (based on the scattered distribution pattern of existing personnel at Fort Benjamin Harrison). No significant negative impacts are expected to occur on local public schools. However, the Metropolitan School District of Lawrence Township is most likely to experience an increase in student population as a direct result of the realignment action. The school district requested the U.S. Army to consider the use of installation property (letter dated June 15, 1989) for a new school, and possible financial assistance to reduce this impact. This request is subject to further consideration as the realignment process is implemented. Other community facilities including recreational, entertainment, public safety, religious, and community service facilities will not experience any significant negative impacts resulting from the realignment action.

On-post passive and active recreational facilities are adequate to support the transferred personnel without any significant negative impacts.

H.4.8.4 Population

The total number of military and civilian authorizations and associated dependents transferred from Fort Sheridan have been estimated to be approximately 4,300. Additionally, an average daily load of 109 students; approximately 50 military and military dependents; and approximately 25 civilian and civilian dependents are being transferred from Fort Jackson. The total gain of military and civilian population to the region is estimated to be approximately 4,400, plus an average daily load increase of 109 students. The impact associated with the realignment of these personnel authorizations on the region represents a total increase in population of approximately 4,500 persons (includes students) or approximately 0.3 percent total increase in regional population (based on 1987 levels). The impacts associated with this increase in population are not considered to be significant due to the anticipated dispersal of population in the region.

H.4.8.5 Economy

Proposed realignment actions (from Fort Sheridan and Fort Jackson) will result in a total of approximately 1,350 permanent employees plus 109 students (average daily load) transferred to Fort Benjamin Harrison. These actions are expected to increase regional sales volume, and increase regional employment and income.

Anticipated socioeconomic impacts at Fort Benjamin Harrison were fully evaluated in a report prepared under the direction of the Institute for Water Resources (IWR, 1989 - Fort Benjamin Harrison). The referenced report was prepared by the U.S. Army Base Realignment and Closure Office (BRACO) Socioeconomic Effects Analysis (SEA) Team. Pertinent SEA Report documents are on file at the Louisville District Office, Corps of Engineers.

The SEA report estimated that the following changes will occur at Fort Benjamin Harrison as a result of realignment actions:

- Installation expenditures for goods, services, supplies, and materials are expected to increase by approximately \$17.6 million.
- Realignment-associated construction expenditures will be approximately \$55.4 million.
- Realignment activities in the Fort Benjamin Harrison area will result in a one-time expenditure of approximately \$20.3 million.
- A portion of the affected permanent military and civilian personnel and their dependents hold employment outside of their military related jobs. Due to changes in personnel at Fort Benjamin Harrison, the number of civilian and military personnel holding second jobs will increase by approximately 60 full-time jobs, and the number of working dependents is expected to increase by approximately 700 person-years. These job changes will increase regional wages and salaries by approximately \$10.0 million.

The BRACO SEA Team utilized the Construction Engineering Research Laboratory (CERL) Economic Impact Forecasting System (EIFS) model to quantify the socioeconomic impacts associated with the recommended realignment actions. Based on this approach, the following impacts are expected to occur in the Fort Benjamin Harrison area.

Realignment Economic Impacts. The realignment actions will result in an increase in the sales volume for regional merchants of approximately \$127.3 million. The primary and secondary impacts will result in an increase of approximately 2,400 person-years in regional employment, and an increase in regional income of approximately \$61.6 million.

Construction Economic Impacts. All construction impacts will occur during the construction period of 1991 through 1993. The total primary and secondary impacts of realignment-associated construction will result in the regional sales volume increasing by approximately \$37.0

million, regional employment increasing by approximately 450 person-years, and regional personal income increasing by approximately \$8.7 million.

One-Time Expenditure Economic Impacts. All one-time expenditure impacts will occur during the period of 1991 through 1993. The total primary and secondary impacts of realignment-associated one-time expenditures will result in the regional sales volume increasing by approximately \$21.3 million, regional employment increasing by approximately 150 person-years, and regional personal income increasing by approximately \$2.4 million.

Summary of Economic Impacts. All actions at Fort Benjamin Harrison are expected to increase regional sales volume by approximately \$186.8 million, increase regional employment by approximately 3,100 person-years, and increase regional income by \$73.9 million. The expected changes in regional sales volume, employment, income, and population within the Fort Benjamin Harrison area represent 1.0%, 0.4%, 0.4%, and 0.3% of their 1987 levels, respectively. The significance of these impacts may be evaluated by a variety of criteria. Significance in the SEA Team analysis was viewed in terms of the overall change in regional conditions. Significance is also determined by gauging the economic resiliency of the region in terms of threshold values representing the maximum of historic variation (the Rational Threshold Value method) and by evaluating the "normal" fluctuations experienced by the region (the Forecast Significance of Impacts procedure). These methods compare the impacts of a proposed action to the historic fluctuations experienced by the region. Based on the analyses of all actions at Fort Benjamin Harrison, the SEA Team concluded that the attendant socioeconomic effects of those actions are not significant.

The details of those methods and a table exhibiting criteria for the testing of significance are included in the referenced SEA Team Report.

H.4.8.6 Housing

Existing on-post housing is currently occupied. A new 212 unit barracks building is proposed and is anticipated to be available as a result of the realignment. Approximately 1,200 of the remaining military and civilian personnel will be required to seek off-post housing. Apartments, condominiums, new homes, and older homes are readily available in the region. Based on information provided by the National Association of Realtors, the average selling price of new and existing homes in the region is below the national housing stock average selling prices. No significant negative impacts are expected as a result of the realignment of personnel to Fort Benjamin Harrison.

SECTION M - FORT M^cCOY REALIGNMENT ACTION

M.4.2 Mission/Functional Activities (Environmental Consequences)

Changes in the military mission at Fort M^cCoy resulting from the realignment action will consist of the addition of administrative mission responsibilities associated with the transfer of units and personnel from Fort Sheridan. These increased area support responsibilities include:

- Reserve Component Support
- DOD Area Support
- Army Continuing Education Support
- Airfield Departure Control
- Public Affairs Activities
- Physical Security
- AWOL Apprehension

These additional mission requirements will not affect the fulfillment of the existing military mission at Fort M^cCoy.

M.4.3 Physical Environment

M.4.3.1 Climate

The climate of the area will not be affected by the realignment action.

M.4.3.2 Topography

The demolition of existing buildings and the construction of one building and associated facilities to support the realignment action will result in minor reconfiguration of existing surface contours in the construction area. The potential topographical impacts are minimized by the relative flatness of the proposed construction site. Pertinent regulations and guidelines for stormwater management and erosion control will be applied through the design and construction phase.

M.4.3.3 Geology and Mineral Resources

The selected realignment construction site poses no geological constraints. No impacts to the existing Fort M^cCoy geology or mineral resources will result from the realignment action.

M.4.3.4 Soils

Soils in the realignment construction area have few development limitations and are classified as slightly erodible. Erosion potential will be minimized by adherence to applicable erosion control regulations and guidelines. All disturbed areas will be revegetated after construction. Potential increase in soil contamination by spills or releases of hazardous materials is negligible due to the small numbers of personnel associated with realignment and the administrative nature of the unit responsibilities.

M.4.3.5 Air Resources

Pollutant emissions from the existing stationary and fugitive sources at Fort M^cCoy will not change. A small increase in mobile source emissions will occur because of increased commuter traffic. This increase in emissions is not expected to have a significant impact.

M.4.4 Water Resources (Environmental Consequences)

M.4.4.1 Groundwater

Fort M^cCoy groundwater sources include aquifers of highly permeable alluvial deposits (sand and gravel) that yield from 175 to 475 GPM of potable water. The realignment action will require minor increases in demand for drinking water. Similarly, construction activities will produce a slight increase in the amount of impervious surfaces at the installation, potentially affecting surface water runoff and groundwater recharge. Effects to aquifer recharge however, will be negligible. Although minor increases in vehicular traffic will occur, effectively implemented spill control plans will provide for the safety of groundwater quality at the installation.

M.4.4.2 Surface Water, Floodplains and Wetlands

Surface water areas at Fort M^cCoy total approximately 200 surface acres of lakes and impoundments and 60 acres of streams. The only surface water resource in the immediate area of the proposed realignment construction is Tarr Creek which is located just south of the "Triad" area. Based upon the minor construction associated with the Fort M^cCoy realignment and the location of the construction, no significant impacts to surface water resources, wetlands or floodplains are anticipated.

M.4.5 Biological Resources (Environmental Consequences)

M.4.5.1 Wildlife Resources

Biological impacts that would occur as a consequence of the proposed action would result from construction of new facilities on-post. The proposed action of Fort M^cCoy would involve the construction of a new administrative building and removal of some existing facilities. However, construction is proposed on a previously disturbed site within the cantonment area and is

therefore not expected to significantly affect wildlife resources. The remaining 57,000 acres of wildlife habitat on-post will remain available for natural wildlife communities.

No impacts to aquatic resources are expected due to the relatively small degree of disturbance and the overall distance of the proposed construction site from surface water resources.

M.4.5.2 Plant Resources

The installation includes an extensive amount of plant resources consisting of forested habitats, grasslands and wetlands. The relatively small area proposed for construction is a previously disturbed area with correspondingly low wildlife potential. Construction activities in this area will not result in significant impacts to plant resources.

M.4.5.3 Threatened and Endangered Species

Several threatened, endangered or sensitive species have been observed at Fort M^cCoy. Several state listed plant species are known from restricted habitats while federally listed animal species such as the peregrine falcon (endangered) and the bald eagle (threatened) have been observed during migration periods. Sensitive areas on the installation are the riparian communities along Silver Creek and Clear Creek. Because of their relative isolation from developed areas or their infrequent occurrence on the site, none of these resources is expected to be impacted by the realignment construction.

M.4.6 **Cultural Resources** (Environmental Consequences)

M.4.6.1 Native American Values

It is not expected that Native American values will be affected by the proposed realignment action.

M.4.6.2 Archaeological Resources

The planned construction of one new building and associated facilities at Fort M^cCoy will result in ground disturbing activity. As stated in Chapter 3, the planned construction site has not been previously surveyed for archaeological resources. Therefore, the Wisconsin State Historic Preservation Officer (SHPO) will be contacted, and an appropriate survey will be conducted. If this survey reveals the presence of archaeological resources eligible for inclusion in the National Register of Historic Places, further consultation will be undertaken pursuant to Section 106 of the National Historic Preservation Act and the Programmatic Agreement executed February 5, 1990 by the Army, the Advisory Council on Historic Preservation (Council) and the National Conference of State Historic Preservation Officers to establish means of preserving such resources, and agreed-upon preservation mechanisms will be implemented.

M.4.6.3 Architectural Resources

Currently, no building, site or property at Fort M^cCoy is listed on the National Register of Historic Places. It is not anticipated that the planned realignment demolition and construction activities will have an adverse effect on architectural resources at Fort M^cCoy. However, the planned modifications will be further evaluated on a site specific basis to assure compliance with Section 106 of the National Historic Preservation Act. This will be accomplished as detailed work plans are developed.

M.4.7 Human Environment (Environmental Consequences)

M.4.7.1 Visual and Aesthetic Values

The proposed realignment construction will occur in the existing cantonment area on a previously developed site. Existing buildings of less visual quality than a new structure will be demolished, therefore any visual or aesthetic impacts will be of a positive nature. Important visual or aesthetic features described in Chapter 3 will not be impacted.

M.4.7.2 Noise and Odor

Noise and odor conditions described in Chapter 3 will be unaffected by the planned action with the exception of an insignificant increase in vehicular traffic created by small increases in the installation population, and a temporary increase in noise that will occur during the demolition of existing buildings and the construction of one new building and associated facilities. This temporary impact will also be insignificant.

M.4.7.3 Hazardous Material Sites

The planned action will result in the construction of one new building at Fort M^cCoy. Current Army guidelines require that all proposed construction sites be screened for potential contamination and categorized according to the degree of risk they pose to human health and safety. Prior to construction, the proposed site will be evaluated and categorized, and appropriate remediation measures will be accomplished if appropriate.

Any increase in the use or storage of hazardous materials resulting from the realignment action will be negligible due to the small number of personnel realigned and the fact that their responsibilities are primarily administrative.

M.4.7.4 Traffic and Transportation

The realignment action proposed for Fort M^cCoy will have no significant impact on the traffic, transportation, or parking systems now in place at the installation. Sufficient excess capacity exists on both the external and internal roadways to easily absorb the increased traffic volumes.

Other transportation modes in the Fort M^cCoy area will not be impacted by the realignment action.

Parking on the installation will be increased to accommodate the realignment action.

M.4.7.5 Utility Systems

The Fort M^cCoy effective population will increase by approximately 110 which is less than two percent of the current effective population. The effective population is defined as the product of the number of military and civilian personnel (including dependents) multiplied by the percentage of a 24-hour day spent on the installation. As described in Chapter 3, all existing systems have considerable excess capacities, therefore increases in demands on and contributions to existing utility systems will be negligible. Service line extensions to the individual systems will be required to serve new construction. Minimal increases in off-post population will also result in negligible off-post utility system impacts.

M.4.7.6 Solid Waste Disposal

As stated above, the population increases resulting from realignment are minor. Therefore, any increases in solid waste generation will have an insignificant impact on existing or planned landfills. Some demolition waste will be generated by the demolition of existing buildings in the realignment construction area. The total demolition related volume will not result in a significant impact to existing or planned landfills.

M.4.8 Socioeconomic Characteristics (Environmental Consequences)

M.4.8.1 Introduction

Evaluation of socioeconomic impacts is directly related to an understanding of the number of personnel authorizations to be transferred to Fort M^cCoy. The specific number of civilian and military employees and their associated dependents continue to be subject to further evaluation and refinement. It should be noted that the personnel authorizations referenced in the Socioeconomic Effects Analysis (SEA) prepared to support this EIS by the Institute for Water Resources (IWR, 1989) were based on the personnel authorization migration information shown in Table 1-1, included in Chapter 1 of this document.

M.4.8.2 Land Use and Zoning

No change in existing land use or zoning is anticipated at Fort M^cCoy as a result of the realignment action. The construction of a new building is planned for an area of compatible land use.

M.4.8.3 Community Facilities

Approximately 90 additional children are anticipated to attend area public schools. This increase in student population is not expected to cause any significant impacts to area schools. Other community facilities including health, public service, recreational, public safety, and religious facilities will not experience any significant impacts resulting from the realignment action.

M.4.8.4 Population

The total number of military and civilian authorizations and associated dependents transferred from Fort Sheridan have been estimated to be approximately 540. The impact associated with the realignment of these personnel authorizations on the region represents approximately a 1.3 percent increase in regional population (based on 1987 levels). The Institute for Water Resources socioeconomic analysis conducted in support of this document (IWR, 1989 - Fort M^cCoy) concluded that this change in population may be significant in terms of its statistical variation from "normal" fluctuations. However, this change in population does not necessarily have any adverse or beneficial impacts on community services, infrastructure or the economy, all of which are discussed under other sections of this EIS.

M.4.8.5 Economy

Proposed realignment actions will result in a total of approximately 170 permanent military and civilian personnel to be transferred to Fort M^cCoy. Anticipated socioeconomic impacts at Fort M^cCoy were fully evaluated in a report prepared under the direction of the Institute of Water Resources (IWR, 1989 - Fort M^cCoy). The referenced report was prepared by the U.S. Army Base Realignment and Closure Office (BRACO) Socioeconomic Effects Analysis (SEA) Team. Pertinent SEA Report documents are on file at the Louisville District Office, Corps of Engineers.

The SEA Report estimated that the following changes will occur at Fort M^cCoy as a result of the realignment actions:

- Installation expenditures for goods, services, supplies and materials are expected to increase by approximately \$5.6 million.
- Realignment-associated construction expenditures will be approximately \$4.0 million.
- Realignment activities in the Fort M^cCoy area will result in a one-time expenditure of approximately \$1.7 million.
- A portion of the affected permanent military and civilian personnel and their dependents hold employment outside of their military related jobs. Due to changes in personnel at Fort M^cCoy, the number of civilian and military personnel holding second jobs will increase by approximately seven full-time jobs, and the number of working dependents is expected to increase by approximately 100 person-years. These job changes will increase regional wages and salaries by approximately \$1.5 million.

The BRACO SEA Team utilized the Construction Engineering Research Laboratory (CERL) Economic Impact Forecasting System (EIFS) model to quantify the socioeconomic impacts

associated with the recommended realignment actions. Based on this approach, the following impacts are expected to occur in the Fort M^cCoy area.

Realignment Economic Impacts. The realignment actions will result in an increase in the sales volume for regional merchants of approximately \$13.0 million. The primary and secondary impacts will result in an increase of approximately 350 person-years in regional employment, and an increase in regional income of approximately \$5.3 million.

Construction Economic Impacts. All construction impacts will occur during the construction period of 1991 through 1993. The total primary and secondary impacts of realignment-associated construction will result in the regional sales volume increasing by approximately \$1.8 million, regional employment increasing by approximately 50 person-years, and regional personal income increasing by approximately \$670,000.

One-Time Expenditure Economic Impacts. All one-time expenditure impacts will occur during the construction period of 1991 through 1993. The total primary and secondary impacts of realignment-associated one-time expenditure will result in the regional sales volume increasing by approximately \$895,000, regional employment increasing by approximately 10 person-years, and regional personal income increasing by approximately \$108,000.

Summary of Economic Impacts. All actions at Fort M^cCoy are expected to increase regional sales volume by approximately \$15.8 million, increase regional employment by approximately 400 person-years, and increase regional income by \$6.1 million.

The expected changes in regional sales volume, employment, income, and population within the Fort M^cCoy area represent 4.1%, 2.0%, 1.4%, and 1.3% of their 1987 levels, respectively. The significance of these impacts may be evaluated by a variety of criteria. Significance in this analysis is viewed in terms of the overall change in regional conditions. Significance is also determined by gauging the economic resiliency of a region in terms of threshold values representing the maximum of historic variation (the Rational Threshold Value method) and by evaluating the "normal" fluctuations experienced by the region (the Forecast Significance of Impacts procedure). These methods compare the impacts of a proposed action to the historic fluctuations experienced by the region. Applying these methods, it was concluded that of the four major impact areas evaluated (sales volume, employment, income and population) the population variable is the only one that will experience a degree of change that may be significant. The details of those methods and a table exhibiting criteria for the testing of significance are included in the referenced SEA Team Report.

M.4.8.6 Housing

The realignment actions at Fort M^cCoy are expected to result in approximately 60 military personnel and military dependents living on-post and approximately 480 civilian and civilian dependents living off-post. An increase of approximately 150 occupied housing units (40 owner occupied and 110 renter occupied) is anticipated in the area. This action will not have any significant impact on the area housing market.

4.9 Probable Adverse Environmental Effects Which Cannot Be Avoided (All Locations)

Although some of the potential adverse impacts can be reduced or prevented, certain impacts cannot be avoided as a result of the planned action. A summary of these unavoidable impacts is provided below.

4.9.1 Fort Sheridan

Socioeconomic Impacts. The planned closure of Fort Sheridan will result in the elimination or out-migration of approximately 2,700 personnel, resulting in a total decrease in regional sales of approximately \$31.3 million, a decrease in regional employment of approximately 3,000 person-years, and a decrease in regional income of approximately \$68.0 million. It is anticipated that this impact will be mitigated to some extent by Federal assistance programs; and ultimately through the realization of an appropriate and economically productive reuse plan for the area to be vacated by the Government. In addition, personnel are scheduled to leave Fort Sheridan over a period of time, thereby allowing area jurisdictions a better chance to absorb and adjust to unavoidable adverse impacts.

Cultural Resources Impacts. Federal procedures for the protection of historic properties at Fort Sheridan stipulate that any Federal action that may cause a change in the quality or character of a designated National Historic Site would, by definition, constitute an effect on historic preservation. Unless adequate restrictions regarding the maintenance and use of a historic site are made prior to transfer or sale of a Federally owned historic property, an adverse effect will have occurred. Army regulations must be followed to maintain the quality and character of the buildings and thus to mitigate the potential adverse impacts.

The character and extent of this potential impact will be disclosed through compliance with Section 106 and 110(f) of the National Historic Preservation Act. A treatment plan for those historic properties will be developed as required to mitigate this impact.

4.9.2 Fort Benjamin Harrison

Socioeconomic Impacts. All planned realignment actions (based on transfers from Fort Sheridan and Fort Jackson) will result in an increase of approximately 1,350 personnel, with an associated increase of \$186.8 million in regional sales volume, an increase in regional employment of approximately 3,100 person-years, and an increase in regional income of approximately \$73.9 million. These impacts will generally be beneficial. However, some short-term adverse impacts are likely to occur as the area adjusts to this influx of new activity.

4.9.3 Fort McCoy

Socioeconomic Impacts. All planned realignment actions will result in the transfer of approximately 170 personnel to Fort McCoy. This will result in an increase in regional sales volume of \$15.8 million, an increase in regional employment of approximately 400 person-years,

and an increase in regional income of approximately \$6.1 million. These impacts will generally be beneficial. However, some short-term adverse impacts may occur as the area adjusts to this new activity.

4.10 Relationship Between Short-Term Use of The Environment and the Maintenance and Enhancement of Long-Term Productivity (All Locations)

Any proposed action results in a series of trade-offs between short-term uses of the environment and the long-term environmental productivity that may be curtailed by the action. Trade-offs that apply to the proposed action are discussed below.

4.10.1 Short-Term Uses of the Environment Versus Long-Term Environmental Losses

The realignment of functions from Fort Sheridan will result in a reduction in annual on-post expenditures as required for maintenance and ongoing improvements/operations. This gain in efficiency of military operations will be at the expense of reduced local economic activity. However, it is anticipated that property to be abandoned at Fort Sheridan is ideally suited to a variety of other land use activities that will ultimately help to alleviate the negative economic impacts of base closure.

The closure of Fort Sheridan will eliminate the risk of accidental hazardous material spills or releases associated with military operations on the property to be disposed of. Hazardous material sites will not be released for redevelopment until they have been fully investigated, any necessary cleanup is completed.

Construction of facilities at Fort Benjamin Harrison and Fort McCoy as required to meet realignment needs will preclude the use of developed land for other purposes by the Army. Likewise, the realignment actions may stimulate some additional residential and commercial development in Marion County, Indiana, and in Monroe County, Wisconsin, thereby precluding other uses of the land. In both Marion County and Monroe County, accelerated economic growth will occur as a result of the realignment action at the expense of increased demands on community infrastructure, and some increased air emissions, waste production and human use of the environment.

4.10.2 Long-Term Uses of the Environment Versus Short-Term Losses

Excavation at Fort Sheridan which may be required for construction activities within the Reserve Component Area, and implementation of any reuse alternative will result in a temporary disturbance to local ecosystems and to the aesthetic appeal of the installation. However, this action will provide for long-term continued and productive use of the land area. Similar trade-offs are associated with the construction of realignment facilities at Fort Benjamin Harrison and Fort McCoy. One-time expenditures of energy for movement of personnel and equipment for the renovation and construction of facilities at the receiving installations may result in long-term energy savings by increasing energy efficiency as a result of operational consolidation.

4.11 Irreversible and Irretrievable Commitments of Resources (All Locations)

Irreversible commitments generally concern changes set in motion by a proposed action which could not be altered at a later time to restore present conditions or environmental resources. Irretrievable commitments refer generally to the use or consumption of resources that are neither renewable nor recoverable for subsequent utilization.

The proposed closure and realignment would involve, in general, the relocation of activities and personnel and the construction of buildings and related facilities. These functions would require a commitment of irretrievable resources as discussed below.

Property to be disposed of at Fort Sheridan would not be readily available for future military use. The potential construction of new buildings at Fort Sheridan (on the Reserve Component Area and associated with the ultimate reuse of the property) would require the commitment of land, construction materials, labor and energy. Although the commitment of land is not irreversible or irretrievable in the strictest sense, it would make the land unavailable for other uses during the life of the structure. In general, land to be developed at the closing and receiving installations is located in previously disturbed areas. Therefore, construction at these sites is not expected to result in significant natural resource impacts.

The transfer of personnel would require that additional fuel be committed for use to meet the projected increased in heating, air conditioning and electricity demands at the receiving installations. In addition, the transfer of personnel would require the commitment of fuel for transportation. These commitments would be irretrievable.

The relocation of personnel from one location to another either as a direct result of or through the loss of job opportunities resulting from the proposed realignment would involve a commitment of personal resources to new jobs; new communities; and related institutions such as churches, schools, and sports clubs on the part of those relocating. For some, such readjustment would present no special problems, for others, however, it may represent an increased financial burden as well as more than a temporary disruption of lifestyle. These social and cultural costs, although not easily quantifiable, are real issues that affect the quality of life and must be considered in an overall assessment of the planned action.

CHAPTER 5

Comments and Coordination

CHAPTER 5

COMMENTS AND COORDINATION

5.1 Scoping Process

On May 8, 1989, the Department of the Army published a Notice of Intent in the Federal Register to prepare an Environmental Impact Statement for the closure of Fort Sheridan, and the realignment of activities to Fort Benjamin Harrison and other locations. Local notification of the scoping meetings was achieved through television, radio, and newspapers.

Public scoping meetings were held at Fort Sheridan on May 30, 1989, and at Fort Benjamin Harrison on June 8, 1989. Transcripts of these scoping meetings are on file at the Louisville District, Corps of Engineers. A list of agencies participating in each meeting, and a summary of issues raised during the scoping process have been included in Section 1.5 of this document.

5.2 Initial Agency Contacts

In addition to information assembled through the scoping process described above, a number of local, state and federal agencies were contacted through correspondence and/or personal visits. These initial contacts were established to ensure that key agencies were aware of the study effort, and to assemble pertinent background information and data. A list of local, state and federal agency contacts established up to the release of the DEIS is as follows:

LOCAL AGENCIES

<u>Agency</u>	<u>Date of Contact</u>	<u>Person Contacted</u>	<u>Type of Contact</u>
Advocates for the Public Interest in Fort Sheridan	30 May 1989	Leah Joy Axelroad Member	Scoping Process
	11 June 1989	Peter J. Koukos Chair	Scoping Process
	30 May 1989	Kathleen Cassidy Vice-Chair	Scoping Process
Buffalo Grove Park District	30 May 1989	Larry Reiner Vice-President	Scoping Process
Castleton Area Civic Organization (CECO)	8 June 1989	John Beckerman CEO Board Member	Scoping Process
City-County Council Indianapolis-Marion County	8 June 1989	Stuart W. Rhodes Councilman, District 7	Scoping Process

LOCAL AGENCIES (Continued)

<u>Agency</u>	<u>Date of Contact</u>	<u>Person Contacted</u>	<u>Type of Contact</u>
City of Highland Park, IL	8 August 1989	Robert J. Piper Director of Community Development	Personal Visit
		John P. Spoden Planner	
City of Highwood, IL	7 August 1989	Fidel Ghini, Mayor	Personal Visit
	5 February 1989	Mayor	Correspondence
City of Indianapolis Division of Planning	8 June 1989	Thomas M. Bartlett City Planner	Scoping Process
City of Lake Forest, IL	9 August 1989	John M. Kalmar Asst. City Planner	Personal Visit
		Charles E. Crook Director of Planning and Development	
City of Lawrence, Indiana	8 June 1989	Beverly Solenberg	Scoping Process
Department of Metropolitan Development City of Indianapolis, IN	10 August 1989	Thomas Bartlett Planner	Personal Visit
		Stuart Reller Administrator, Planning Division	
Environmental Control Commission of Highland Park, IL	30 May 1989	Martin Rukin Chairman	Scoping Process
Fort Sheridan Commission	9 February 1990	Jack Morehead Commission Coordinator	Telephone

LOCAL AGENCIES (Continued)

<u>Agency</u>	<u>Date of Contact</u>	<u>Person Contacted</u>	<u>Type of Contact</u>
Friends of White River	8 June 1989	Kevin Strunk	Scoping Process
Highwood Chamber of Commerce	14 June 1989	Bruno Bertucci Executive Director	Scoping Process
Highwood-Highland Park Education Association	30 May 1989	Teta Minuzzo President	Scoping Process
Indianapolis Air Pollution Control Division	2 October 1989	Matt Mosier	Telephone
The Kaja Group	30 May 1989	Stephen W. Kaja President	Scoping Process
Lake County Forest Preserve District	9 June 1989	C. Richard Anderson President	Scoping Process
Lake Michigan Federation	30 May 1989	George M°Kiernan Director	Scoping Process
League of Women Voters of Lake County, Illinois	31 May 1989	Beryl Flom President	Scoping Process
Metropolitan School District of Lawrence Township	15 June 1989	Dr. Edward M. Williams Asst. Superintendent for Planning and Physical Plant Operations	Scoping Process
Northeastern Illinois Planning Commission	6 June 1989	Lawrence B. Christmas Executive Director	Scoping Process
Northeastern Illinois Planning Commission	7 August 1989	Phillip D. Peters Deputy Director	Personal Visit
Office of Congressman Dan Burton	8 June 1989	John Price II	Scoping Process
Office of Congressman John Porter	30 May 1989	Ginny Hotaling Executive Assistant	Scoping Process

STATE AGENCIES

<u>Agency</u>	<u>Date of Contact</u>	<u>Person Contacted</u>	<u>Type of Contact</u>
Illinois Audubon Society	30 May 1989	Warren Dewalt Executive Director	Scoping Process
Illinois Department of Conservation Division of Natural Heritage	8 September 1989	John Buhnerkempe Data Coordinator	Correspondence
Illinois Department of Transportation Map Sales Department	28 August 1989	-----	Correspondence
Illinois Environmental Protection Agency	8 September 1989	Terry Sweitzer Manager, Air Pollution Control Division	Correspondence
	2 October 1989	John Blazis Environmental Engineer Air Pollution Control Division	Correspondence
	8 September 1989	Tom McSwiggin Manager Water Pollution Control Division	Correspondence
	20 September 1989	Sharyn Haney Record Units Supervisor Water Pollution Control Division	Correspondence
	8 September 1989	Larry Eastep Manager Land Pollution	Correspondence
Illinois Historic Preservation Agency	6 June 1989	Theodore W. Wild Deputy State Historic Preservation Officer	Scoping Process

STATE AGENCIES (Continued)

<u>Agency</u>	<u>Date of Contact</u>	<u>Person Contacted</u>	<u>Type of Contact</u>
Illinois Nature Preserves Commission	11 September 1989	-----	Correspondence
Illinois State Water Survey	6 September 1989	Mike Bender Associate Engineer	Telephone
Indiana Department of Environmental Management	11 September 1989	Kathy Prosser Commissioner	Correspondence
Landmark Preservation Council of Illinois	30 May 1989	Susan Benjamin Member of the Board of Directors	Scoping Process
Open Lands Project	30 May 1989	David Sanders Regional Director	Scoping Process
University of Illinois at Chicago, Office of the Vice-Chancellor for Research and the Dean of Graduate Studies	30 May 1989	Dr. Wolfgang Boerner Professor	Scoping Process

FEDERAL AGENCIES

American Federation of Government Employees	30 May 1989	Ben L. Wagner	Scoping Process
Department of the Interior	11 September 1989	Regional Director	Correspondence
U.S. Fish and Wildlife Service	14 February 1990	Regional Director	Correspondence
National Trust for Historic Preservation	6 June 1989	Tim Turner Regional Director	Scoping Process
Office of Economic Adjustment	7 February 1990	Wally Bishop Manager	Telephone
Department of Veterans Affairs	26 July 1989	Dick Cheney Secretary of Defense	Correspondence
	18 September 1989	Secretary, Dept. of Veteran Affairs	Correspondence

FEDERAL AGENCIES (Continued)

<u>Agency</u>	<u>Date of Contact</u>	<u>Person Contacted</u>	<u>Type of Contact</u>
U.S. Environmental Protection Agency Region - 5	11 September 1989	Bill Franz Chief Environmental Review Branch	Correspondence

5.3 Local Task Force (Fort Sheridan Commission)

The Base Closure and Realignment Act included provisions for the Office of Economic Adjustment (OEA) to assist local jurisdictions located near a military installation to be closed. In the case of Fort Sheridan, the OEA has helped to form a Fort Sheridan Commission. The Commission includes representatives from each affected local jurisdiction and a wide range of public and private interest groups.

As of February, 1990, the Fort Sheridan Commission had completed the formation of ten advisory panels as listed in Section 2.3.1 of this document. It is anticipated that these advisory panels will be active throughout the Fort Sheridan closure, reuse planning, and plan implementation stages. Copies of all Fort Sheridan Commission meeting minutes (from July, 1989 through December, 1989) were obtained, reviewed and considered during the preparation of the Draft Environmental Impact Statement.

5.4 Distribution and Review of Draft Environmental Impact Statement (DEIS)

The DEIS was filed with the U.S. Environmental Protection Agency (EPA) and circulated for public review and comment. The Fort Sheridan Base Closure DEIS was distributed on May 18, 1990, and Notice of Availability appeared in the Federal Register on the same date. The notice initiated a 45 day comment period, which ended on July 2, 1990. Public hearings were held on June 11, 1990 at Lawrence Central High School Auditorium, Indianapolis, Indiana; and on June 21, 1990 at Northwood Junior High School Auditorium, Highland Park, Chicago.

A list of local, regional, state and federal agencies to be provided with a copy of this DEIS is shown below. In addition, a copy of the DEIS was sent to persons and groups who participated in the initial scoping meetings (See Section 5.2), and others who formally requested to be added to the DEIS distribution mailing list. Other agencies, groups and individuals were informed of availability via issuance of public notice.

FORT SHERIDAN

Local

The Honorable David Barkhausen
State Senator
273 E. Market Square
Lake Forest, Illinois 60045

Mr. Bruno Bertucci
Highwood Chamber of Commerce
17 Highwood Avenue, Suite 201
P.O. Box 305
Highwood, Illinois 60040

The Honorable Alan J. Dixon
United States Senate
Washington, DC 20510

The Honorable Virginia F. Fredrick
State Representative
1540 Greenleaf Avenue
Lake Forest, Illinois 60045

The Honorable Norman Geary
Chairman, Lake County Board
230 South Slusser Street
Grayslake, Illinois 60030

The Honorable Adeline Geo-Karis
State Senator
2613 North Sheridan Road
Zion, Illinois 60099

The Honorable Fidel Ghini
Mayor of Highland
17 Highwood Avenue
Highwood, Illinois 60035

The Honorable Robert Keats
State Senator
500 Park Avenue
P.O. Box 305
Kennilworth, Illinois 60043

The Honorable James C. Mitchell
Lake County Board Member
1219 Blackthorn Drive
Deerfield, Illinois 60015

Mr. David Mosena - Director
City of Chicago
Department of Planning
121 North LaSalle
Chicago, Illinois 60602

The Honorable Daniel Pierce
Mayor of Highland Park
1707 St. John's Avenue
Highland Park, Illinois 60035

The Honorable John E. Porter
House of Representatives
Washington, DC 20515

The Honorable Richard Price
Lake County Board Member
780 Northmoor Road
Lake Forest, Illinois 60045

The Honorable Paul Simon
United States Senate
Washington, DC 20510

The Honorable Grace Mary Stern
State Representative
559 Roger Williams Avenue
Highland Park, Illinois 60043

The Honorable Donald Strenger
Lake County Board Member
340 North Western Avenue
Lake Forest, Illinois 60045

The Honorable Marshall Strenger
Mayor of Lake Forest
110 East Laurel Avenue
Lake Forest, Illinois 60045

Highland Park Public Library
494 Laurel Avenue
Highland Park, Illinois 60035

FORT SHERIDAN (Con't)

LOCAL

Lake Forest Public Library
360 E. Deerpath
Lake Forest, Illinois 60045

Regional

Mr. Lawrence B. Christmas
Executive Director
Northeastern Illinois Planning Commission
400 West Madison Street
Chicago, Illinois 60606

Illinois Wildlife Federation
123 S. Chicago Street
Rossville, Illinois 60963

Mr. Jack Morehead, Administrator
Fort Sheridan Commission
P.O. Box 275, Building 121
Fort Sheridan, Illinois 60037

State

Mr. Tom Berkshire
Office of the Governor
State of Illinois
Springfield, Illinois 62706

Mr. Richard J. Carlson, Director
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

Mr. Theodore H. Hild
Deputy State Historic Preservation Officer
Illinois Historic Preservation Agency
Old State Capital
Springfield, Illinois 62701

Mr. David Kenney, Director
Illinois Department of Conservation
Lincoln Tower Plaza
524 S. Second Street
Springfield, Illinois 62706

Mr. Martin Paulsen
North Chicago Chamber of Commerce
Chairman of Military Affairs Committee
c/o The Parkway Restaurant
3035 Belvidere Road
Waukegan, Illinois 60085

Mr. Tim Turner
Regional Director (Midwest Office)
National Trust for Historic Preservation
53 West Jackson Boulevard
Suite 1135
Chicago, Illinois 60604

Mr. John D. Kramer, Secretary
Illinois Dept. of Transportation
2300 S. Dirksen Parkway
Springfield, Illinois 62764

Landmark Preservation Council of IL.
711 Marion Avenue
Highland Park, Illinois 60035

Dr. Lorin Nerling, Chief
State Natural History Survey Division
Natural Resources Building
607 E. Peabody Drive
Champaign, Illinois 61820

Mr. Preston Schellbach, Chairman
Illinois Nature Preserves Commission
600 N. Grand Avenue
Springfield, Illinois 62706

FORT SHERIDAN (Con't)

State

Mr. Thomas Skinner
Office of the Governor
State of Illinois Center
100 Randolph Street
Chicago, Illinois 60601

Mr. Don Vannahme, Director
Division of Water Resources
Illinois Dept. of Transportation
2300 Dickson Parkway
Springfield, Illinois 62764

Mr. Larry A. Werries
Illinois Department of Agriculture
State Fairgrounds
Springfield, Illinois 62706

Mr. Michael B. Witte, Director
Illinois Dept. of Energy and
Nature Resources
325 W. Adams Street, Room 300
Springfield, Illinois 62706

Ms. Christine Zeman
Asst. Attorney General
Chief, Environmental Control Division
Office of the Attorney General
500 South Second
Springfield, Illinois 62706

FORT BENJAMIN HARRISON

Local

The Honorable Dan Burton
House of Representatives
Washington, DC 20515

The Honorable Dan Coats
United States Senate
Washington, DC 20510

The Honorable Richard G. Lugar
United States Senate
Washington, DC 20510

Indianapolis-Marion County
Public Library, Central Branch
40 E. St. Clair
Indianapolis, Indiana 46204

Lawrence Library
7898 N. Hague Road
Indianapolis, Indiana 46256

Mr. Stuart Reller
Administrator, Planning Division
Dept. of Metropolitan Development
City of Indianapolis
Room 2001
City-County Building
Indianapolis, IN 46204

Mr. Stuart W. Rodes
Councilman, District 7
The Council, City of Indianapolis-
Marion County
6254 N. Tuxedo Street
Indianapolis, Indiana 46220

The Honorable Thomas Schneider
Mayor of Lawrence
4455 M^cCoy Street
Lawrence, Indiana 46206

FORT BENJAMIN HARRISON (Con't)

Regional

Executive Director
Dept. of Metropolitan Development
20th Floor
City-County Building
Indianapolis, Indiana 46204

Indiana Wildlife Federation
P.O. Box 283
Zionsville, Indiana 46077

Executive Director
Indiana 15 Regional Planning Commission
511 Fourth Street, P.O. Box 70
Huntington, Indiana 47542

State

Indiana Division Engineer
Federal Highway Administration
U.S. Dept. of Transportation
575 N. Pennsylvania St., Rm 254
Indianapolis, Indiana 46204

Mr. Bart Patterson
Office of the Governor
State of Indiana
Statehouse, Room 206
Indianapolis, Indiana 46204

Ms. Susan J. Kennell
State Budget Agency
212 State House
Indianapolis, Indiana 46204

Mr. Patrick Ralston, Director
State Historic Preservation Office
Dept. of Natural Resources
608 State Office Building
Indianapolis, Indiana 46204

Ms. Nancy A. Maloley
Indiana Dept. of Environmental
Management
105 South Meridian Street
P.O. Box 6015
Indianapolis, Indiana 46205-6015

Mr. James M. Ridenour, Director
Indiana Dept. of Natural Resources
608 State Office Building
Indianapolis, Indiana 46204

FORT M^cCOY

Local

Honorable James F. Ebert
Mayor of Tomah
819 Superior Ave.
Tomah, WI 54660

Public Library
321 Main St.
Black River Falls, WI 54615

LaCrosse Public Library
Attn: Madaline Anderson
800 Main St.
La Crosse, WI 54601

Sparta Public Library
Court & Main
Sparta, WI 54656

FORT M^cCOY (Con't)

Mark Wienkes
Soil Conservation Service
303 W. Oak St.
Sparta, WI 54656

Mayor of Sparta
City Hall
City Hall
Sparta, WI 54656

Monroe County Board Chairman
Attn: Christian Stefferud
Route #2
Tomah, WI 54660

Ms. Carolyn Habelman
Monroe County Historical Society
Route 3, Box 253
Black River Falls, WI 54615

Regional

Great Lakes Intertribal Council
P.O. Box 9
Lac du Flambeau, WI 54538

Hannibal Bolton
Fish and Wildlife Service
51606 Saint Clair
Ashland, WI 54606

State

Department of Administration
1 W. Wilson, Rm. B130
Madison, WI 53702

Land Resource Bureau
801 W. Badger Road
Madison, WI 53713
Attn: LaVerne Ausman, Secretary

Tomah Public Library
716 Superior
Tomah, WI 54660

Wisconsin Ecological Society
Attn: R. Barlament
P.O. Box 514
Green Bay, WI 54305

Wisconsin Wildlife Federation
Attn: Richard A. Hemp
908 9th St.
Mosinee, WI 54455

Mr. Otto Bollinger
Mississippi River Regional
Planning Commission
907 Main Street
LaCrosse, WI 54601

The Honorable Alvin Baldus
United States House of
Representatives
Washington, DC 20515

The Honorable Herbert H. Kohl
United States Senate
Washington, DC 20510

FORT M^cCOY (Con't)

Mr. Jeff Dean
State Historic Preservation Office
Historic Preservation Division
State Historical Society of Wisconsin
816 State Street
Madison, WI 53706

Mr. Stan Druckenmiller
Director, Bureau of Environmental
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Department of Natural Resources
P.O. Box 7921
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Mr. Thomas J. Dawson
Office of Public Intervenor
123 West Washington Avenue
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Madison, WI 53707

Mr. Tom Lovejoy
Environmental Impact coordinator
Department of Natural Resources
Western District Headquarters
1300 W. Clairemont Avenue
Call Box 4001
Eau Claire, WI 54702

Office of the Governor
State Capital
P.O. Box 7863
Madison, WI 53707

The Honorable Robert W. Kasten, Jr.
United States Senate
Washington, DC 20510

Regional Forester
Eastern Region
633 W. Wisconsin Ave.
Milwaukee, WI 53202

Wisconsin Dept. of Natural Resources
P.O. Box 7921
Madison, WI 53707
Attn: C. D. Besadny, Secretary

Wisconsin Geological and Natural
History Survey
University of Wisconsin
1815 University Avenue
Madison, WI 53706
Attn: M.E. Ostrom, Director

Wisconsin Legislative Reference Bureau
Room 201 North
State Capitol
Madison, WI 53702

FEDERAL (Applicable to all locations)

Administrator
Agricultural Research Service
Department of Agriculture
Washington, DC 20250

Assistant Secretary
Director, Environmental Project
Review Office, USDI
18th and C Streets, Room 424-1
Washington, DC 20240

Assistant Secretary for Occupational
Safety and Health
Department of Labor
200 Constitution Ave., NW
Washington, DC 20210

Center of Environmental Health
Special Programs
Center for Disease Control
Shambee 27
Atlanta, GA 30333

Deputy Assistant Secretary
Land and Water
Department of Interior
Washington, DC 20240

Director
Bureau of Land Management
Department of Interior
Washington, DC 20240

Director
Office of Environmental Affairs
Department of Health, Education
and Welfare
330 Independence Avenue, S.W.
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Director
Office of Environmental Quality
Department of Housing and
Urban Development
451 Seventh Street, SW
Washington, DC 20410

Director
Office of Environmental Quality
Office of the Assistant Secretary
for Environment, Safety and
Consumer Affairs
Department of Transportation
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Director
Office of NEPA Affairs
U.S. Department of Energy
Washington, DC 20545

Director
United States Fish and
Wildlife Service
Department of Interior
Washington, DC 20240

Division of NEPA Affairs
Department of Energy
100 Independence Avenue, Rm 4G064
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Environmental Defense Fund
1525 18th Street, NW
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Mr. Robert L. Eddleman
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Mr. Wally Bishop, Sr. Project Manager
Office of Economic Adjustment
Department of Defense
The Pentagon, Room 4C 767
Washington, DC 20301

Mr. Don H. Castleberry
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National Park Service, USDI
1709 Jackson Street
Omaha, Nebraska 68102

Mr. Warren J. Fitzgerald
State Conservationist
Soil Conservation Service USDA
Springer Federal Building
301 N. Randolph
Champaign, IL 61820

Mr. James C. Gritman
Fish and Wildlife Service
Fort Snelling Federal Building
Twin Cities, MN 55111

Mr. William D. Franz
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U.S. Environmental Protection
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Mr. John Seyffert
Federal Emergency Management
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Ms. Janet Smith
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Green Bay Field Office
U.S. Fish & Wildlife Service
University of Wisconsin - Green Bay
Green Bay, WI 54301

Mr. Rick Nelson
U.S. Fish and Wildlife Service
Field Supervisor
1830 2nd Avenue
Rock Island, IL 61201

National Audubon Society
1511 K St., NW
Washington, DC 20005

FEDERAL (Con't)

National Wildlife Federation
Attn: Director of Federal Affairs
1412 16th St., NW
Washington, DC 20036

The Advisory Council on Historic
Preservation
Old Post Office Building
1100 Pennsylvania Ave., N.W.
Suite 809
Washington, DC 20004

Office of the Deputy Assistant
Secretary for Environmental
Affairs
U.S. Department of Commerce
Washington, DC 20230

Regional Administrator
Environmental Protection Agency
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Chicago, IL 60604

Regional Administrator
Region 5
300 S. Wacker
Dept. of Housing & Urban Development
Chicago, IL 60606

Regional Director
United States Fish and
Wildlife Service
Department of Interior
Federal Building
Ft. Snelling, St. Paul, MN 55111

Regional Engineer
Federal Energy Regulatory Commission
Federal Bldg., Room 3120
Chicago, IL 60604

Regional Environmental Office
U.S. Department of Health, Education
and Welfare
Room 712, New Post Office Bldg.
433 West Van Buren St.
Chicago, IL 60607

Region V Secretarial Representative
U.S. Department of Transportation
17th Floor, 300 W. Wacker Dr.
Chicago, IL 60606

Secretary
Dept. of Veterans Affairs
Central Office
810 Vermont Avenue, NW
Washington, DC 20420

Sierra Club
324 C St., S.E.
Washington, DC 20004

Supervisor
Fish and Wildlife Service, USDI
718 N. Walnut Street
Bloomington, IN 47401

5.5 DEIS Comments and Responses

As discussed in Section 5.4, the Fort Sheridan Base Closure Draft Environmental Impact Statement (DEIS) was widely distributed to Federal, State and local agencies, as well as individuals who had expressed an interest in the planned action. This section has been prepared to document all comments that were received during the 45 day DEIS review period, and to provide responses where appropriate.

Comments and responses have been provided in the following order:

- 5.5.1 Fort Sheridan Public Hearing
- 5.5.2 Written Comments Related to Fort Sheridan
- 5.5.3 Fort Benjamin Harrison Public Hearing
- 5.5.4 Written Comments Related to Fort Benjamin Harrison
- 5.5.5 Written Comments Related to Fort McCoy

The divider sheet between each subsection identifies the responding agencies or individuals in the order that they have been included.

5.5.1 FORT SHERIDAN PUBLIC HEARING

Northwood Jr. High School - Highland Park, Illinois
June 21, 1990 - 7:00 PM

<u>Speakers in Order Presented:</u>	<u>Page</u>
1. Mr. Skip Jacobs, Fort Sheridan Commission	5-19
2. Mr. Pete Koukos, Chairman, Advocates for Public Interest in Fort Sheridan	5-20
3. Ms. Antoinette Minuzzo, Past President, Highwood-Highland Park Education Association	5-20
4. Dr. Brian D. Anderson, Director, Illinois Nature Preserves Commission	5-21
5. Ms. Alice H. Sievert	5-21
6. Dr. Arnell D. Potter	5-22
7. Unidentified Speaker	5-23
8. Mr. James C. Mitchell, Jr., Lake County Board	5-23

FORT SHERIDAN PUBLIC HEARING

SUMMARY OF COMMENTS AND RESPONSES

Speaker, Comment & Transcript Reference

Response

1. Mr. Skip Jacobs (Fort Sheridan Commission Member-Environmental):

- | | |
|--|--|
| <p>1a. What will it cost to clean up environmental hazards at Fort Sheridan, and who will be responsible for this cost? (Page 13, Paragraph 4, and Page 20, Paragraph 4)</p> <p>1b. Are cleanup funds available, and if so, what is the anticipated source of these funds? (Page 14, paragraph 1)</p> <p>1c. It is conceivable that the cost of closing Fort Sheridan could exceed the benefits as a result of the environmental cleanup activities that may need to be accomplished. (Page 22, Paragraph 4)</p> | <p>1a. The specific cost estimates for environmental cleanup activities at Fort Sheridan will not be known until the Remedial Investigation Feasibility Study portion of the Installation Restoration Program (IRP--as discussed in Section 1.6.3 of the DEIS) has been completed. The Department of Defense is responsible for the cost of investigation and implementing all required remediation actions.</p> <p>1b. A specific program has been established by the Department of Defense to evaluate and clean-up environmental hazards on installations to be closed as a result of the Base Closure and Realignment Act (Public Law 100-526). Funding is currently being reviewed. Restoration not accomplished by existing funds will be added to the Defense Environmental Restoration Account Work.</p> <p>1c. As stated in Section 1.1 of the DEIS, the decision to close Fort Sheridan was made and enacted as law as a result of the Defense Secretary's Commission on Base Realignment and Closure, and the Base Closure Realignment Act. The referenced Commission concluded that environmental restoration needs at Fort Sheridan are relatively minor, and that the total benefits of closing the installation clearly outweighed the costs.</p> |
|--|--|

Speaker, Comment & Transcript Reference

Response

2. Mr. Pete Koukos (Chairman, Advocates for Public Interest in Fort Sheridan)

- 2a. Submitted a Fort Sheridan Reuse study prepared on behalf of the Advocates, and stated that their proposed "mixed-use" plan will not require a higher level of new construction or property redevelopment as compared to the "residential" alternative described in the DEIS.
(Page 14, Paragraph 4)

- 2b. Stated that the "residential" alternative will have the greatest adverse impact on the local taxpayer in terms of associated infrastructure costs, and that it will generate the most harmful traffic impacts on surrounding communities.
(Page 15, Paragraph 1)

3. Ms. Antoinette Minuzzo (Past President, Highwood-Highland Park Education Association)

- 3a. Comments at the public hearing were identical to those provided in Ms. Minuzzo's letter to the U.S. Army dated June 21, 1990.

- 2a. The mixed use alternative and the residential alternative will require similar levels of renovation and new construction. The adaptive reuse of existing nonresidential buildings, the upgrading of existing residential units and the construction of support facilities will require a significant level of construction activity.

- 2b. The residential use alternative will result in positive economic impacts for the area jurisdictions. However, the reuse alternatives that increase employment and commerce will have a more positive impact on the local taxpayer. Traffic generated by the residential use alternative is dependent upon the density of residential development. Local zoning can control density of development and, therefore, the impact of traffic generated.

- 3a. Responses to issues raised in the referenced letter have been provided under the written comments and responses section of this document.

Speaker, Comment & Transcript Reference

Response

4. Dr. Brian D. Anderson (Director, Illinois Nature Preserves Commission)

- 4a. Concerned that the decommissioning of Fort Sheridan could result in the degradation of two areas at Fort Sheridan that have been identified as Illinois Natural Areas. Noted that federal ownership of these areas has precluded ability to dedicate these areas as State Nature Preserves, but that this designation could be applied under any other (nonfederal) owner. Therefore, recommended that the FEIS should recognize the dedication of the referenced properties as State Nature Preserve prior to or simultaneous with the decommissioning as a potential mitigative alternative.
(Page 17, Paragraph 5)

- 4a. We concur with this mitigation alternative, and appropriate text has been added to Sections S.3.5.3 and SR. 4.5.3 of this FEIS.

5. Ms. Alice H. Sievert (Representing Self)

- 5a. Stated that the DEIS did not adequately consider the potential value of Fort Sheridan as public open space.
(Page 18, Paragraph 1)

- 5a. A public recreational use alternative was considered. This concept included the development of open space for both active and passive recreational uses. This alternative did not have the extensive support from federal, state or local park and recreational agencies that would be required. All of the conceptual alternatives that were considered by the DEIS included the preservation of open space to the maximum extent possible.

Speaker, Comment & Transcript Reference

Response

- 5b. Stated that the site along Sheridan Road is not suited for extensive office or commercial development due to limited east-west access and narrow frontage and feeder roads.
(Page 18, Paragraph 1)
- 5c. Stated that Fort Sheridan property would be very suitable for a national park, and that this should be considered.
(Page 18, Paragraph 2)
6. Dr. Arnel D. Potter (Self)
- 6a. Concerned that the DEIS indicated that "they didn't find anything" at Fort Sheridan in regard to hazardous or toxic materials or sites.
(Page 18, Paragraph 4)
- 6b. Who is responsible for assessing actual hazardous waste problems (type, extent and cleanup cost)?
(Page 18, Paragraph 4)
- 5b. Comment is essentially correct. Lack of high capacity east-west link to U.S. 41 and I-94 would limit the extent and intensity of any office or commercial development. Access would rely heavily on commuter rail, bus transit, and existing surface streets. Any development on the site must balance its intensity with the total transportation system capabilities to provide adequate access and to meet the needs and desires of adjacent communities.
- 5c. See response to Question No. 5a above.
- 6a. The DEIS did not conclude that there are no environmental hazards at Fort Sheridan. The Enhanced Preliminary Assessment Report that has been prepared by the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) documents a number of potential environmental hazards that must be further investigated through the ongoing Installation Restoration Program (IRP) process. A summary of USATHAMA's initial findings was included in Section S.3.7.3 and S.3.7.6 of the Fort Sheridan Base Closure DEIS.
- 6b. See response to Question No. 1a above.

Speaker, Comment & Transcript Reference

Response

7. Unidentified Speaker

- 7a. Can you define the region considered in the DEIS economic impact analysis?
(Page 19, Paragraph 6)

7a. The region included all of Lake County as illustrated on page 3-31 of the DEIS.

8. Mr. James C. Mitchell, Jr. (Lake County Board)

- 8a. If none of the municipalities would grant any zoning, how would a buyer be able to develop it?
(Page 23, Paragraph 1)

8a. The majority of Fort Sheridan is already zoned as a special use district. The remainder of the property is zoned residential. The special use district will accommodate a variety of uses. A new property owner could develop the entire parcel under the existing zoning.

- 8b. If the buyer of the land could not obtain zoning approval, how would the Federal Government deal with this situation?
(Page 23, Paragraph 1)

8b. The granting of any zoning changes affecting Fort Sheridan is dependent upon the municipal zoning approval process. The sale of property to a potential developer which is dependent upon a zoning change would require mutual agreements with the locality, the potential owners and the federal government.

- 8c. If the military were to retain control or ownership management of the entire Fort Sheridan complex, could they then defer remediation for any of the land fill sites in perpetuity, or put it on a priority list that it could be so far down the list that it would not be addressed?
(Page 23, Paragraph 5)

8c. If the decision was made that it would not be cost effective to clean up the site, the Army could decide to retain the property in perpetuity. However, if an imminent threat to human health or safety is found, it will be removed, contained or eliminated.

Speaker, Comment & Transcript Reference

Response

8d. If the local communities and/or Lake County were to accept the Fort Sheridan site as is, and then prepare, fund and implement their own remediation plan, would it be possible to consider the transfer of the base to these jurisdictions at no cost?
(Page 24, Paragraph 2)

8d. The Department of Defense is committed to completing a full investigation and documentation of environmental hazards at Fort Sheridan through the on-going Installation Restoration Program (IRP) described in Section 1.6.3 of the DEIS. After this inventory and analysis of potential hazards has been complete, and the costs of required cleanup activities has been determined, the Army would be in a position to discuss alternatives for the ultimate cleanup and disposition of affected property.

Meeting adjourned at 8:00 PM.

5.5.2 FORT SHERIDAN WRITTEN COMMENTS

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Advisory Council On Historic Preservation

The Old Post Office Building
1100 Pennsylvania Avenue, NW, #809
Washington, DC 20004

JUL 2 1990

Mr. William R. Haynes
Environmental Protection Specialist
U.S. Army Corps of Engineers
CEORL-PD-R
P.O. Box 59
Louisville, KY 40201-0059

REF: Base Closure and Realignment of Fort Sheridan,
Fort Sheridan, Illinois

Dear Mr. Haynes:

Thank you for forwarding a copy of the Draft Environmental Impact Statement (EIS) to the Council for the referenced project.

Pursuant to the Programmatic Agreement (PA) among the Council, the Army, and the National Conference of State Historic Preservation Officers, we have reviewed the proposed actions that are planned at Fort Sheridan in Illinois, Fort McCoy in Wisconsin, and Fort Benjamin Harrison in Indiana as part of the closure of Fort Sheridan. The sections on cultural resources indicate that the Army will need to undertake additional surveys and studies at each installation to identify all historic properties that may be affected by the proposed actions. As part of the ongoing identification process, we request that the Army include the following information:

- o Re-evaluation of Fort Sheridan to determine whether the existing classification of buildings should be revised.

- o Clarification of the significance of the shorelines, ravines, bluffs, open spaces, and parade grounds to the integrity of Fort Sheridan.

- o Completion of the identification and evaluation of historic buildings at Fort McCoy and clarification of which areas of the facility may contain significant archeological resources.

- o Clarification of the status of the Historic Preservation Plans, required in accordance with AR 420-40, for Fort McCoy and Fort Benjamin Harris.

o Completion of a comprehensive archeological survey of Fort Benjamin Harrison.

o Clarification of which historic properties at Fort Benjamin Harris are referred to in the design guidelines in the Mariani & Associates Study (1987) and the McGillem & Associates Plan (1989).

② Based on our review of other sections of the Draft EIS, we feel that the following preservation issues should be addressed to facilitate the Section 106 review.

1) What measures will the Army take to stabilize, secure, protect, and maintain buildings that are vacated or underutilized pending the completion of realignment activities at Fort Sheridan?

2) What measures will be taken to ensure that alternative designs for new construction are compatible with the character of the district?

3) What will be the basis for determining the appropriateness of conveying portions of Fort Sheridan to Federal, State, or local agencies?

4) If Fort Sheridan is conveyed through competitive bid at Fair Market Value, what role will the Council, Illinois State Historic Preservation Officer, and the Commission have in the review of proposed redevelopment proposals?

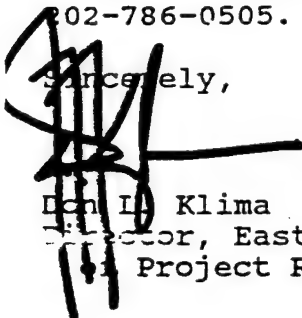
③ While we appreciate the Army's intention to involve the Council in the review of the proposed closure of Fort Sheridan in the future, we would like to point out that since the installation is a designated National Historic Landmark the Council should be involved early on in the analysis of reuse alternatives. The Draft EIS indicates that the Fort Sheridan Commission was created under the auspices of the Office of Economic Adjustment (OEA) in 1989 to coordinate the public involvement in the evaluation of reuse alternatives. Regrettably, we have not been kept informed of the actions undertaken by this organization; nor is it clear to us whether one of the ten panels appointed by the Commission is responsible for addressing historic preservation issues. We therefore request that the Commission contact us in the near future so that we can discuss to what extent the Council and Illinois State Historic Preservation Officer (SHPO) should participate in future discussions and how we can improve communications.

⑥ Finally, we understand that during the public hearing held in Highland Park on June 22, 1990, regarding the closure of Fort Sheridan, there was limited discussion by the Army regarding the

historic significance of the installation. As you may know, the PA requires the Army to work with local re-use committees and other interested parties to develop treatments and/or management plans to ensure compatible reuse. Further, since the closure and disposal of Fort Sheridan have the potential to alter the existing character of this National Historic Landmark, we would encourage the Army to make a concerted effort to keep the general public informed of measures that are being considered to preserve and protect the overall character of the historic property.

We look forward to working with the Army in fulfilling the provisions of the Base Closure and Realignment Act. If we can be of further assistance, please contact Charlene Dwin Vaughn at 802-786-0505.

Sincerely,



Don L. Klima
Director, Eastern Office
Project Review

RESPONSE TO LETTER FROM ADVISORY COUNCIL ON HISTORIC PRESERVATION
(7/2/90)

1. The referenced information will be considered and provided to the full extent required by law to comply with the ongoing cultural resource identification and protection process.
2. The referenced preservation issues will be considered in support of the Section 106 compliance process.
3. The Fort Sheridan Commission and Department of Defense Office of Economic Adjustment have been made aware of your interest.
4. The Fort Sheridan Commission panel on Historic Preservation is responsible for considering all cultural resource issues relating to the closure and reuse of Fort Sheridan.
5. A copy of the July 2, 1990 letter from the Advisory Council on Historic Preservation has been forwarded to the Fort Sheridan Commission and OEA, noting the request and need for improved communications.
6. The referenced public hearing was initiated with a 15 minute narrated slide presentation. The narrative component of this presentation has been included in the meeting transcript. This slide show included numerous references and slides of the unique historic resources at Fort Sheridan.

Centers for Disease Control
Atlanta GA 30333
June 20, 1990

Mr. William R. Haynes
U.S. Army Corps of Engineers
EORL-PD-R
P.O. Box 59
Louisville, Kentucky 40201-0059

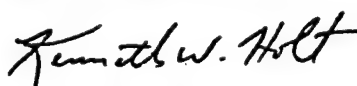
Dear Mr. Haynes:

We have completed our review of the Draft Environmental Impact Statement (DEIS) for the Closure of Fort Sheridan, Illinois. We are responding on behalf of the U.S. Public Health Service.

We noted in the DEIS that for Base closure and realignment actions, the scope of the Installation Restoration Program (IRP) will be expanded to include asbestos, PCB's and other contamination not normally investigated. The IRP will also include two existing landfills which may contain some hazardous substances, although potential aquifer contamination is stated to be unlikely. Although the "statement of clearance of hazardous or toxic substances" will not be completed until after the Record of Decision (ROD), the Army has committed and will stipulate in the ROD that all restoration requirements will be met before disposition of property. Therefore, we believe issues relative to public health have been addressed in this DEIS.

Thank you for the opportunity to review and comment on this document. Please insure that we are included on your mailing list to receive a copy of the Final EIS, and future DEIS's which may indicate potential public health impact and are developed under the National Environmental Policy Act (NEPA).

Sincerely yours,



Kenneth W. Holt, M.S.E.H.
Environmental Health Scientist
Center for Environmental Health
and Injury Control

RESPONSE TO LETTER FROM U.S. DEPARTMENT OF HEALTH & HUMAN SERVICES
(6/20/90)

1. Comment noted, and is consistent with text included in the DEIS.
2. The Department of Health & Human Services will be included on the FEIS distribution list, as will all persons and agencies who received a copy of the DEIS.



DEPARTMENT OF THE NAVY

NORTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
BUILDING 77L, U.S. NAVAL BASE
PHILADELPHIA, PENNSYLVANIA 19112-5094

IN REPLY REFER TO
11010
Code 202.2:KDP

29 JUN 1993

From: Commanding Officer, Northern Division, Naval Facilities Engineering Command

To: U.S. Army Engineer District, Louisville, Corps of Engineers

Subject: REVIEW OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE CLOSURE OF FORT SHERIDAN, IL

References: (a) Draft Environmental Impact Statement (DEIS) for the closure of Fort Sheridan, IL
(b) U.S. Army Engineer District, Louisville, Corps of Engineers letter of 11 May 1990

Enclosure: (1) Map of Fort Sheridan outlining Navy Military Housing interests

Reference (a), forwarded for review and comment by reference (b), has been reviewed.

The subject DEIS discusses seven reuse alternatives for Fort Sheridan property, as follows:

- Alternative 1. Single Purpose User
- Alternative 2. Industrial
- Alternative 3. Commercial Center
- Alternative 4. Public Recreation
- Alternative 5. Resort Conference Center/Residential
- Alternative 6. Mixed Use
- Alternative 7. Residential

Three of the above reuse options, alternatives 5, 6, and 7, were considered to have enough merit to warrant further evaluation in the subject DEIS. These three alternatives are addressed throughout the remainder of the DEIS.

We assert that another alternative should be considered in the subject DEIS. The Naval Training Center, Great Lakes and the Naval Air Station, Glenview have a critical military housing shortage and are highly interested in acquiring 329 units of Fort Sheridan's housing for use as Navy housing, as shown on enclosure (1). Negotiations are ongoing between the Army and Navy concerning the transfer of Fort Sheridan's family housing, and Secretary of the Navy approval for the acquisition of the Fort Sheridan housing is expected. Preliminary indications are that this transfer of housing would occur in the 1993-94 timeframe. As the Navy's acquisition and use of the Fort Sheridan military housing is certainly a reasonable and highly probable reuse alternative, this "Navy housing" alternative should be afforded the same level of evaluation as alternatives 5, 6, and 7, mentioned in the previous paragraph. This would avoid segmenting the NEPA process.

② 4. The DEIS mentions Navy housing only in Chapter 2 (section 2.2.3 Other Considerations), which states "Prior to the release of this EIS, the U.S. Navy proposed to acquire the on-post housing or a portion thereof, at Fort Sheridan. ... Should these proposals become reasonable reuse alternatives, the responsible federal agencies will prepare appropriate environmental analyses." To the contrary, the U.S. Army is responsible to accurately assess the reuse alternatives for the closure of Fort Sheridan. Omission of the "Navy housing" alternative from analysis in the EIS will mislead readers and reviewers, especially as other, much less likely, alternatives were evaluated in a detailed manner. Therefore, once the subject EIS includes the possible Navy reuse of Fort Sheridan's housing, the Army will have fulfilled its NEPA obligation and, consequently, the Navy will adopt the EIS to meet its NEPA responsibility.

③ 5. The DEIS also indicates in Chapter 1, Table 1-1 "Fort Sheridan Migration of Personnel Authorizations" (page 1-4) and Section 1.6 subsection 1.6.2 Minor Realignment Actions page 1-16) that relocation of units to Great Lakes Naval Stations will occur as a result of the closure of Fort Sheridan. This should be coordinated with the Staff Civil Engineer of the Naval Training Center, Great Lakes.

6. Please revise the subject DEIS to include the above considerations in the final Environmental Impact Statement. Any questions concerning this matter should be directed to Ms. Kim DePaul at (215) 897-6262.



D. DROZD
By Direction

Copy to:
CO NTC GLAKES
NAS GLENVIEW
PWC GLAKES
CNET
CNTECHTRA
COMNAVFACENGCOM (Code 20YJO)

RESPONSE TO LETTER FROM DEPARTMENT OF THE NAVY (6/29/90)

1. Reuse Alternatives 5, 6, and 7 all have residential components which could be designated for Navy use. Each of these alternatives considers the environmental consequences of total development of Fort Sheridan. Therefore, the Navy's proposed use of 329 units of Fort Sheridan's housing is consistent with and adequately addressed under the three preferred reuse plans described in the DEIS.
2. The uncertainty of the final disposition of Fort Sheridan makes it impossible to prepare a detailed environmental analysis of the ultimate development. Therefore, seven reuse alternatives were developed. These alternatives were broad in scope and included major land use development schemes appropriate to the surrounding environmental and developmental opportunities and constraints. The reuse alternatives analyzed in the DEIS have the potential to include not only the Navy's proposal but also other proposals, which together with the Navy's proposal, can provide for the orderly reuse of Fort Sheridan property.
3. Coordination with the Staff Civil Engineer of the Naval Training Center Great Lakes will be initiated as realignment plans are finalized.



National Recreation and Park Association

July 2, 1990

Mr. William R. Haynes
U.S. Army Engineer District, Louisville
Environmental Protection Specialist
600 Dr. Martin Luther King Jr. Place; Room 137
Louisville, KY 40201

Dear Mr. Haynes:

The National Recreation and Park Association thanks you for the opportunity to comment on the Draft Environmental Impact Statement for the Fort Sheridan, Illinois, base closure and realignment. The NRPA is a national organization representing over twenty thousand park and recreation managers and professionals whose mission is to ensure quality recreation opportunities and park resources for all Americans.

Under the Federal Property and Administrative Services Act of 1949, as amended, the National Park Service (NPS) has responsibility, delegated by the Department of the Interior, for the Federal Surplus Property Public Benefit Discount Program for park and recreation purposes. Through this program NPS may request, on behalf of State and local governments, the transfer of Federal surplus properties for parks and recreation at up to no cost to State and local governments.

As you are aware, Public Law 100-526, the Base Closure Act of 1988, gave the Department of Defense (DoD) responsibility for implementing the Property and Administrative Services Act of 1949, as amended, for disposing of selected military bases. Under these Acts, the DoD and the military branches are directed to consider public benefit conveyances for park and recreation and natural resource protection purposes. The DoD formerly recognized this obligation in its "Principles in Preliminary Property Screening and Community Reuse," July 20, 1989. In addition, the Congressional Research Service's American Law Division has concluded that public benefit discounts are not only permitted but encouraged to consider and conserve natural and recreational resources in the public interest (copy enclosed).

However, the Draft EIS (Section 1.6.5, "General Property Disposition Process") fails to address the DoD's authority and obligations to consider public benefit discounts for parks and recreation and natural resources purposes in the disposal surplus military lands, including Fort Sheridan.

This omission is a critical oversight by failing to recognize existing procedures and Federal obligations for protecting existing environmental resources on Federal lands, as well as DoD and NPS

administration of the public benefit discount programs for recreational and natural resources. By omission, the Draft EIS fails to inform the States and local communities of potential opportunities and Federal assistance for acquisition and protection of significant resources.

② The NRPA also takes exception, in principle, to the EIS exclusion of public recreation as a reuse alternative based on its argument that recreation does not offer "support of the local tax base." Recreational resources and facilities having regional influence, such as may be possible at Fort Sheridan, have been shown to increase nearby property values and attract new dollars to the area from visitors. For example, visitors to the Elroy-Sparta Trail in Wisconsin, a bicycle trail in rural communities of approximately 5,000 population each, spend approximately \$1,260,000 per year (\$25.14 per person) for trip-related expenses, and nearly one-half of the users (48.7%) come from outside the state -- most from Illinois.

③ We urge your inclusion of a public recreation use option in the final EIS and that it specifically reference acquisition opportunities presented by the Federal Surplus Property Public Benefit Discount program.

Thank you for your consideration.

Sincerely,



R. Dean Tice
Executive Director

RESPONSE TO LETTER FROM NATIONAL RECREATION AND PARK ASSOCIATION
(7/2/90)

1. The referenced omission in the property disposition process has been noted, and additional narrative has been included in Section 1.6.5 of this FEIS.
2. The Public Recreational Use alternative was not excluded from further consideration solely on its degree of support of the local tax base. Other factors which include the lack of any known definitive plans from public recreation agencies and the difficulty of maintaining and preserving the historic district under this alternative also contributed to the decision to exclude this alternative from further consideration. It is agreed that a Public Recreational Use alternative could attract new dollars to the area from visitors. However, the Public Recreational Use itself would not generate any significant local tax base.
3. A Public Recreational Use alternative was considered in the Draft EIS, but excluded from further consideration as discussed under Item No. 2 above. The acquisition opportunities presented by the Federal Surplus Property Public Benefit Discount Program have been documented as discussed in Item No. 1 above.

**Department of
Veterans Affairs**

JUL 3 1990

In Reply Refer To:

Mr. William R. Haynes
U.S. Army Corps of Engineers
CEORL-PD-R
P.O. Box 59
Louisville, Kentucky 40201-0059

Dear Mr. Haynes:

I appreciate this opportunity to comment on your Fort Sheridan, IL, Base Closure Draft Environmental Impact Statement (EIS). I commend you on a very readable EIS.

The fact that the existing cemetery will be transferred to the Department of Veterans Affairs (VA) for continued operation and maintenance is stated in the Summary on page SU-2. On page 4-15, however, the statement is made that, "The Department of Veterans Affairs has indicated an interest in assuming responsibility for the existing cemetery area, as well as potential land area for expansion of the cemetery." This was not expanded in additional discussions of potential reuse alternatives or elsewhere within the EIS. I do not believe that the full impact of VA's strong interest is contained within the quoted sentence.

VA has long been considering the potential of about 188 acres of Fort Sheridan for use as a national cemetery. As well as the existing cemetery, this area consists of much of the lands north of Hutchinsons and James Ravines, including a significant portion of the existing golf course. Our representatives have visited the site on a number of occasions and an initial site investigation has been completed. Furthermore, we held a scoping meeting in Chicago preparatory to completing an EIS on the Fort Sheridan site along with two other alternative sites in northeastern Illinois. Our EIS will address the environmental consequences of constructing and operating a national cemetery in the area. The conversion of about 27 percent of the Fort to a national cemetery would have a significant impact on future land use. We suggest these matters be considered in greater detail in the future land use portion of your Fort Sheridan closure EIS.

Page 2

Mr. William R. Haynes
Louisville, Kentucky 40201-0059

② The northern ravine was identified as Jane's Ravine on pages 3-6, 3-10, 3-11, 4-2, 4-4, and 4-5, and as James Ravine on page 3-37. The latter spelling is also used on the official Fort Sheridan map.

③ On page 3-7, it is stated that no flood insurance rate map for the town of Highwood was printed, indicating that no floodplain exists. When FEMA does not print a floodplain insurance rate map it does not necessarily mean that no floodplains exist, but that the area may have chosen not to participate in the flood insurance program. I believe this is the case and also that the Fort does not have any floodplains.

Again, I appreciate this opportunity to provide comments. If any questions arise, please contact Mr. Robert Frazier at FTS: 373-3717 or (202) 233-3717.

Sincerely yours,


Principal Deputy for
David E. Lewis
Director of Environmental Affairs

RESPONSE TO LETTER FROM DEPARTMENT OF VETERANS AFFAIRS (7/3/90)

1. Should approximately 27 percent of Fort Sheridan be converted to a national cemetery, the adjacent land use and zoning will be reviewed by the local jurisdiction for conformity with local planning and zoning controls. The final reuse alternative should specify land use categories and locations compatible with adjacent on- and off-post development. Furthermore, the expansion of the cemetery in the northwest corner of the installation can be accommodated within each of the three preferred reuse alternatives identified and evaluated in the DEIS. Therefore, no additional analysis is required in this document.
2. The correct spelling is Jane's Ravine. This change has been made in Section 5.3.8.3 of this FEIS.
3. It is recognized that no regulatory floodplain has been identified within Fort Sheridan boundaries. However, the shoreline area within the installation is comparable in terms of physical characteristics, elevation and flooding potential to the shoreline areas to the immediate north and south. Therefore, it is most logical to assume that flood hazards throughout this coastal zone are comparable.



United States Department of the Interior

TAKE
PRIDE IN
AMERICA

OFFICE OF THE SECRETARY
OFFICE OF ENVIRONMENTAL AFFAIRS
230 S. DEARBORN, SUITE 3422
CHICAGO, ILLINOIS 60604

ER-90/466

July 5, 1990

Mr. William R. Haynes
U.S. Army Engineer District, Louisville
Environmental Protection Specialist
P.O. Box 59
Louisville, Kentucky 40201-0059

Dear Mr. Haynes:

The Department of the Interior has reviewed the Draft Environmental Impact Statement for the Fort Sheridan Base Closure and Realignment, Lake County, Illinois. We have the following comments.

Recreation Resources

Under the Federal Property and Administrative Services Act of 1949, as amended, the National Park Service (NPS) has responsibility, delegated by the Department of the Interior, for the Federal Surplus Property Public Benefit Discount Program for park and recreation purposes. Through this program, the NPS may request on behalf of State and local governments, the transfer of Federal surplus properties at up to no cost to State and local governments for parks and recreation.

To date, the NPS has identified potential recreational resources and recommended the transfer of eight bases, in full or in part, to State or local governments at no cost for parks and recreation, as allowed under the Property and Administrative Services Act of 1949, as amended. The NPS is working with local communities to help plan the reuse of potential recreation resources at Fort Sheridan and other bases.

As you are aware, Public Law 100-526, the Base Closure Act of 1988, gave the Department of Defense (DOD) responsibility for implementing the Property and Administrative Services Act of 1949, as amended, for disposing of selected military bases. Under these Acts, the DOD and the military branches are directed to consider public benefit conveyances for park and recreation, and natural resource protection purposes. The DOD formerly recognized this obligation in its "Principles in Preliminary Property Screening and Community Reuse", July 20, 1989. In addition, the Congressional Research Service's American Law

Division has concluded that public benefit discounts are not only permitted but encouraged to consider and conserve natural and recreational resources in the public interest (copy enclosed).

①

However, the Draft EIS (Section 1.6.5, "General Property Disposition Process") fails to address the DOD's authority and obligations to consider public benefit discounts for parks and recreation and natural resources purposes in the disposal surplus military lands, including Fort Sheridan.

This omission is a critical oversight by failing to recognize existing procedures and Federal obligations for protecting environmental resources on Federal lands, as well as DOD and NPS administration of the public benefit discount programs for recreational and natural resources. By omission, the Draft EIS fails to inform the States and local communities of potential opportunities and Federal assistance for acquisition and protection of significant resources.

②

The NPS also takes exception, in principle, to the EIS exclusion of public recreation as a reuse alternative based on its argument that recreation does not offer "support of the local tax base." Recreational resources and facilities having regional influence, such as may be possible at Fort Sheridan, have been shown to increase nearby property values and attract new dollars to the area from visitors. For example, visitors to the Elroy-Sparta Trail in Wisconsin, a bicycle trail in rural communities of approximately 5,000 population each, spend approximately \$1,260,000 per year (\$25.14 per person) for trip-related expenses, and nearly one-half (48.7%) of the users come from outside the State -- most from Illinois.

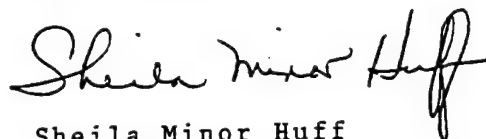
Mineral Resources

③

The DEIS does not address mineral ownership, resource potential, or include a recommendation concerning whether the mineral estate should be retained or disposed if the base is closed. Based upon previous correspondence, the mineral estate is claimed by the United States government.

Until the Bureau of Land Management completes a mineral evaluation of Fort Sheridan, per existing agreement, the decision regarding possible disposal of the mineral estate should be delayed. If requested by the Department of Defense, we may be able to complete the evaluation for inclusion in the Final EIS.

Sincerely,



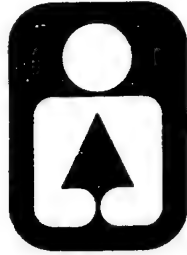
Sheila Minor Huff
Regional Environmental Officer

Enclosure

RESPONSE TO LETTER FROM UNITED STATES DEPARTMENT OF THE INTERIOR
(7/5/90).

1. See response to identical comment by the National Recreation and Park Association. (Comment No. 1, NRPA letter dated 7/2/90.)
2. See response to identical comment by National Recreation and Park Association. (Comment No. 2, NRPA letter dated 7/2/90.)
3. The Army appreciates the offer by the Department of the Interior to complete a mineral evaluation for Fort Sheridan. A review of all available deeds of acquisition for Fort Sheridan indicates that they do not mention mineral rights specifically, either as to their inclusion or exclusion. Therefore, it is assumed that the mineral estate is owned by the United States. The Milwaukee Bureau of Land Management (BLM) requested information pertaining to mineral rights at Fort Sheridan, and the Louisville District Corps of Engineers informed them that the Corps' Washington level real estate office is presently negotiating a Memorandum of Understanding (MOU) with the Department of Interior, Bureau of Land Management, in relation to all Base Closure actions. The MOU will address what the Department of the Army's intentions are as far as retaining mineral rights at all Army bases to be closed. The Louisville District has been informed verbally that unless BLM notifies us that there are minerals which they feel need to be retained on behalf of the United States Government, the Army will not retain any mineral rights. The Milwaukee BLM office was provided this information on January 5, 1990. To date, they have not notified the Louisville District Corps of Engineers of the results of their evaluation of the mineral rights at Fort Sheridan.

Illinois



Department of Conservation

life and land together

LINCOLN TOWER PLAZA • 524 SOUTH SECOND STREET • SPRINGFIELD 62701-1787
CHICAGO OFFICE • ROOM 4-300 • 100 WEST RANDOLPH 60601
MARK FRECH, DIRECTOR - KATHY SELCKE, ASSISTANT DIRECTOR

July 6, 1990

Mr. William R. Haynes
U.S. Army Corps of Engineers
CEDRL-PD-R
P.O. Box 59
Louisville, Kentucky 40201-0059

Dear Mr. Haynes:

The Department has completed its review of the May, 1990 Draft Environmental Impact Statement (DEIS) for the Fort Sheridan, Illinois Base Closure. We were also present at the June 21, 1990 public meeting at Highland Park, Illinois.

The Department has had a long-standing interest in Fort Sheridan as it provides several outstanding natural resource and recreation opportunities. The Department's position on Ft. Sheridan is attached for your information and use. I call your attention to our four (4) recommendations to preserve the natural areas and recreation opportunities which are:

1. The Fort's two natural areas and sufficient buffer to protect them should be dedicated as Illinois nature preserves to protect them in perpetuity. Land use adjacent to these preserves should be compatible with preserve management to ensure protection of unique natural values.
2. The Fort's Lake Michigan shoreline should be maintained in public open space. As a resource, the Fort Sheridan shoreline is largely bluff with limited beach. Enhancing the beach would require continuing a substantial investment in shoreline protection already made by the U.S. Army. Such enhancement would further encourage increased use, which could threaten the shoreline's fragile natural resources. Resource and fiscal constraints may restrict Fort Sheridan's beach use to primarily passive recreation.
3. The Fort's wooded areas and ravines should be retained to provide general wildlife habitat.

- ④ 4. The Fort's open space and recreational facilities should be maintained for public use.

Based on the seven (7) reuse concepts discussed in the DEIS it would appear Alternative 6 - Mixed Use best fits our recommendations and that of other interests in the area.

The Department also has comments on specific sections of the DEIS, namely:

- ⑤ . S.3.4.3 Floodplains/wetlands - We recommend this section be expanded to include a discussion of the significance of the Lake Michigan - wetland interface.
- ⑥ . S.3.5.1. Wildlife Resources - The wildlife listings in the DEIS are rather brief and based on 1985 data. We recommend they be updated. We would be pleased to recommend additional data sources on request.
- ⑦ . Figure 1 - 3 on page 1 - 7 - The Department can assist the Corps in evaluating the fish population and physical features of the "fish pond" as necessary.

If there are questions about our position and/or comments please advise.

Sincerely,

Mark Frech

Mark Frech
Director

RWL:ts

Attachment - 1

cc: USFWS, R.I.

P.S. A recent survey of the Ft. Sheridan Beach and bluffs conducted by the DOC has made us aware of additional populations of state listed threatened and endangered (T/E) plants. In June of 1990 DOC staff made the following discoveries at Ft. Sheridan:

- ⑧ a) A new population of buffaloberry (Shepherdia canadensis), an Illinois endangered plant on the lake bluff, just south of the water treatment plant near the aqueduct as shown on the attached map.
- b) A new population of ground juniper (Juniperus communis), an Illinois threatened plant on the lake bluff south of the Van Horne Ravine as shown on the attached map.

Both species were already know to occur at Ft. Sheridan; these are new locations for the plants.

RESPONSE TO LETTER FROM ILLINOIS DEPARTMENT OF CONSERVATION (7/6/90)

1. Two statements have been added to this FEIS to indicate the potential to designate the referenced areas as State Nature Preserves if they are transferred from federal ownership. These changes have been incorporated in Sections 5.3.5.3 and SR.4.5.3.
2. The three preferred reuse alternatives for Fort Sheridan that are presented in the DEIS are all based on the assumption that the Lake Michigan shoreline should be preserved and made available to the public to the maximum extent possible. We concur that the beachfront is generally most suitable for passive recreational use.
3. The DEIS supports the preservation of the installation's wooded areas and ravines.
4. Ideally, existing open space and recreational facilities at Fort Sheridan should be maintained for public use. However, the specific use of these areas and facilities will also depend on the economic feasibility of specific reuse plans.
5. As described in the DEIS, there are three areas along Lake Michigan that have been mapped as wetlands by the National Wetland Inventory. These areas, designated L2USJ, are "beach" areas that are flooded for short periods during storm events or in years of high lake water level. They are particularly important as buffer zones, protecting more inshore areas from erosive forces of wind and water. Stabilization of dunes and lake bluffs in the vicinity of Fort Sheridan is particularly important as several unique species are found on-site.
6. The wildlife listings in the DEIS were based on information that was available to the study team at the time the document was prepared. No attempt was made to develop an exhaustive or complete list of species that occur in the area. Emphasis was placed on identification of known threatened or endangered species.
7. Comment noted.
8. We appreciate receipt of this new information. A statement has been added to Section 5.3.5.3 of this FEIS recognizing the presence of these new plant locations.



8

STATE OF ILLINOIS
OFFICE OF THE GOVERNOR
SPRINGFIELD 62706

AMES R. THOMPSON
GOVERNOR

SAI# 90-05-18-73

SUBJECT: Identification of the Effects of the Planned Action on the Natural,
Social and Cultural Environment at Fort Sheridan

TO: Mr. William R. Haynes
Environmental Protection Specialist
P.O. Box 59
Louisville, Kentucky 40201-0059

The Illinois State Clearinghouse has reviewed the reference subject pursuant to the National Environmental Policy Act of 1969. State agencies which are authorized to develop and enforce environmental standards have been given the opportunity to comment on this subject. At this time no comments have been received.


Illinois State Clearinghouse

June 18, 1990

RESPONSE LETTER FROM STATE OF ILLINOIS, OFFICE OF THE GOVERNOR (6/18/90)

1. Comment noted.



Illinois Historic Preservation Agency

Old State Capitol • Springfield, Illinois 62701 • (217) 782-4836

217/785-4512

June 29, 1990

Mr. William R. Haynes
Environmental Protection Specialist
U.S. Army Engineer District, Louisville
Post Office Box 59
Louisville, Kentucky 40201-0059

Dear Mr. Haynes:

We have reviewed the Draft Environmental Impact Statement for the Fort Sheridan, Illinois Base Closure and Realignment as it pertains to cultural resources.

The Draft adequately discusses archaeological resources that may be present on the base and we concur with the report's recommendation for further investigations of undisturbed land as identified in Figure 35-5 of the draft EIS.

The report correctly identifies the Ft. Sheridan Historic District (NHL) which resulted from a 1979 NPS study. During this study, structures on the base less than 50 years old were not evaluated. As per the nationwide Programmatic Agreement for the Base Closure and Realignment Act, structures now over 40 years old must be evaluated for significance in accordance with National Register Criteria. This will primarily be limited to World War II buildings and structures. This evaluation should occur either prior to the publication of the final EIS or pursuant to an individual MOA for the Ft. Sheridan Closure.

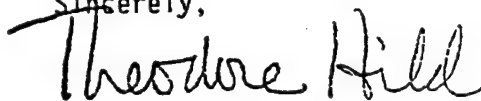
Effects on known resources, i.e. the historic district, were adequately discussed. Treatment of all resources should be undertaken through an MOA between the Army, ACHP and our office. We would support an MOA that included language to achieve the following goals in addition to the ones previously stated:

1. Buildings of historic significance should be transferred with a protective covenant to ensure rehabilitation and maintenance in accordance with the Secretary of the Interior's Standards for Historic Preservation Projects.

- ②
2. Significant open spaces within the historic district should be protected after property disposal, including the bluffline, ravines, historic parade ground and spatial relationship between buildings.
 3. The property should be adequately maintained if under utilized or unoccupied during closure and transfer in accordance with the Standards.

We look forward to consulting with the Army and the Advisory Council on Historic Preservation in developing a Memorandum of Agreement. If you have any questions in the meantime, please contact Anne M. Haaker of my staff at 217/785-4512.

Sincerely,



Theodore W. Hild
Deputy State Historic
Preservation Officer

TWH:AMH:kh

cc: ACHP

RESPONSE TO LETTER FROM ILLINOIS HISTORIC PRESERVATION AGENCY (6/29/90)

1. The referenced evaluation will be conducted pursuant to the preparation of an individual MOA for the closure of Fort Sheridan.
2. The referenced goals will be considered through the ongoing Section 106 compliance process and included in the final MOA to the extent possible after consideration of all pertinent factors.



THE
WILLARD INTER-CONTINENTAL
WASHINGTON, D. C.

10

375 Dundee Road
Glenview IL 60022
June 29, 1990

Mr. William R. Haynes
U.S. Army Corps of Engineers
CEORL PD-R
P.O. Box 59
Louisville, Kentucky 40201-0059

Dear Mr. Haynes,

After reading the Draft Environmental Impact Statement on the planned closure and realignment of Fort Sheridan, I would like to request more detailed attention be given to the urban forest on the property.

As the Sierra Club representative to the Advocates for the Public Interest in Fort Sheridan, I appreciate the attention given to the natural assets and endangered species on all sites studied. Yet no specific mention has been made to the large number of old and stately trees over the entire property which in conjunction with Lake Michigan forms an irreplaceable natural resource.

A 1987 Tree Inventory by Benatec Associates of Cleveland, Ohio shows that there were over 5000 trees including 2000+ oak trees of varying species. Almost 900 were 20 inches in diameter or more. Because of the slow growth rate in oaks, this would indicate that these mature individuals are over 100 years old, some possibly remnants of pre settlement times.

There is a worldwide concern and appreciation for preserving trees for their environmental significance as well as for esthetic value. The Army so far has done a commendable job of preserving these representatives of our living history. Their value towards the quality of soil, water, air, temperature and wildlife is immeasurable.

Studies done by the city of Evanston, Illinois and Northwestern University predict a high loss of mature oak trees due to a combination of urban impact factors. Healthy specimens must be preserved and protected for research and restoration ecology.

I believe it is vitally important to consider the age and ecological importance of the Fort Sheridan Oak Trees as well as all other native species on the property. They should be protected from the impact of any development and preserved for future generations "May see what their ancestors knew." (DeVoto)

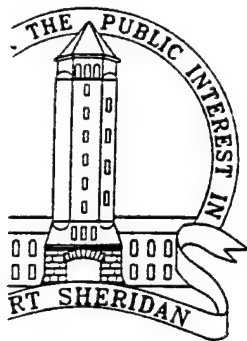
Thank you for your consideration

Sincerely

Chris Adamson
Sierra Club
North Suburbana Chapter

RESPONSE TO LETTER FROM CHRIS ADAMSON (6/29/90)

1. We agree that the existing mature trees located in the Historic District and other locations within Fort Sheridan boundaries represent an important natural resource that should be conserved to the extent possible. This is particularly true within the Historic District boundaries where the mature landscape represents an integral part of the historic context of the area. Additional text has been added to Section 5.3.5.2 of this FEIS to help emphasize this resource.



ADVOCATES FOR THE PUBLIC INTEREST IN FORT SHERIDAN

220 SOUTH STATE STREET
SUITE 1880
CHICAGO, IL 60604-2103
312-427-4256

REPLY TO:

PETER J. KOUKOS
447 HAZEL
HIGHLAND PARK IL 60035
312/670-6190
708/433-0759

June 21, 1990

DRING COMMITTEE

P. Koukos
District of Highland Park
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en S. Cassidy
League of Evanston
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N. Woods
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Preserve District

S. Benjamin
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Clanchetti
Association
Districts

Dewalt
Audubon Society

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Club

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i Kronish
of Women Voters

F. McKiernan
Michigan Federation

STATEMENT TO THE CORPS OF ENGINEERS PUBLIC MEETING FOR THE DRAFT EIS DATED MAY 1990 ON JUNE 21, 1990

My name is Pete Koukos, Chair of the Advocates for the Public Interest in Fort Sheridan. We appreciate the opportunity to comment on the Corps' Draft EIS.

In addition, I've attached a copy of the study commissioned by the Advocates with Clarion Associates and funded by the Chicago Community Trust - to our knowledge - the only privately funded study of any base closure reuse plan.

We basically concur and commend the draft EIS prepared by the Corps. We take exception to only a few conclusions.

- ① 1. Our mixed use plan will not require a higher level of new construction and property redevelopment as compared to the residential alternative.
- ② 2. We believe the residential alternative will have the greatest adverse impact on the local taxpayer in terms of additional costs of infrastructure as well as causing the most harmful impact on traffic for the surrounding communities.
- ③ The draft EIS is absolutely correct in concluding that the residential alternative will restrict public access and eventually lead to a loss of protection of the unique habitat areas and the historic district.
- ④ We ask the Corps to review its conclusions as reported above and to make use of the study we commissioned as required.

Thank you again for this opportunity to comment on the draft.

RESPONSE TO LETTER FROM ADVOCATES FOR THE PUBLIC INTEREST IN FORT SHERIDAN (6/21/90)

1. Identical to Item Number 2a contained in the Fort Sheridan Public Hearing Comment and Response documentation.
2. Identical to Item Number 2b contained in the Fort Sheridan Public Hearing Comment and Response documentation.
3. Comment noted.
4. The report on the potential for public reuse of Fort Sheridan prepared by Clarion Associates, Inc. for the Advocates for the Public Interest in Fort Sheridan has been reviewed. The alternative presented in this report is very similar to the mixed use alternative considered in the DEIS. Both alternatives allow for the maximum use of historic resources, preservation of natural resources and provide for a diverse economy of scale and use that is well integrated and compatible with the surrounding environment.

HIGHWOOD - HIGHLAND PARK EDUCATION ASSOCIATION

240 Prairie Avenue
Highwood, Illinois 60040

June 21, 1990

To: U.S. Army Engineer District, Louisville
Attn: William Ray Haynes (CEORL-R)
P. O. Box 59
Louisville, Kentucky 40201-0059

From: Antoinette Minuzzo
Highwood-Highland Park Education Association

The Highwood-Highland Park Education Association appreciates the opportunity to once again testify regarding the impact on its personnel due to the closure of Fort Sheridan. We have participated in the education panel of the Fort Sheridan Commission and have attended all Commission meetings.

The facts have not changed. School District 111 is most severely and financially affected by the Fort Sheridan, Illinois, base closure. We will lose 450 students in grades K - 8 which is one third of our school age population. This will mean a loss of 25 to 30 district personnel and a possible decrease in the programs we offer our students. The district has been experiencing a significant loss of income from impact aid, due to the insufficient appropriations from the federal government in recent years. In 1989, District 111 was entitled to \$1.3 million from impact aid; however we only received \$664,000. This uncertainty and unreliability of funding is of major concern to our district. It is imperative that full funding for impact aid be appropriated. District 111 is in the "Super A" category for impact aid. Almost all of the Fort Sheridan students who attend our two elementary and one junior high school live on the base. During the transitional period, we urge that all impact aid funds be fully allocated to District 111 and all school districts affected by base closures at the same rate and in same category of funding that was in effect at the time of the base closure.

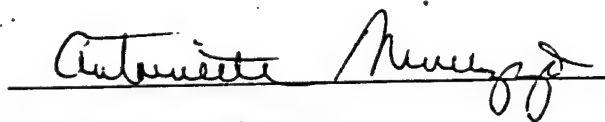
HHPEA bargains for all school employees. We must protect their jobs and their economic benefits during the base closure period and be aware of the changes to the school district created by various proposals under consideration by the Fort Sheridan Commission.

It is imperative that all proposals that bring new students into the school system provide an adequate tax base and full funding of educational expenses in order that School District 111 may maintain and retain high quality educational programs for its students. Reductions of programs and personnel will have a detrimental effect on students. We have just begun to restore programs and we do not wish to revert backward. District 111 is an excellent school system. We will continue to provide excellent educational opportunities to all students that come to us from Fort Sheridan or any new enrollees from whatever plan is approved for the property.

4) We believe that the Fort Sheridan property should be maintained as a single unit. Students of families residing within the boundaries of Fort Sheridan must remain within the school attendance area for District 111 and District 113. We support the use of the Fort Sheridan property for educational and research purposes. The natural resources and historical nature of this property offer many educational opportunities for individuals of all ages and its unique characteristics must be preserved.

5) Population changes at Fort Sheridan will significantly impact School District 111. We recommend that the school district be kept fully informed of the number of families entering or leaving the base and the dates of transfers. It would be very helpful if transfers be scheduled to conform with school vacation breaks whenever possible to make the school transitions least disruptive to the students and their families. The Fort Sheridan Civilian Personnel Office should obtain information on the local school districts for incoming or outgoing personnel to assist them with school registrations and the transfer of school records and information.

Thank you. We will continue to monitor the changes that will occur from the decision to close Fort Sheridan. Your consideration of the issues affecting School District 111 will be appreciated.



Antoinette Minuzzo
Highwood-Highland Park
Education Association

RESPONSE TO LETTER FROM HIGHWOOD-HIGHLAND PARK EDUCATION ASSOCIATION (6/21/90)

1. The factual information provided has been incorporated in Section SC.4.8.3 of this FEIS.
2. Comment noted for the record.
3. The three preferred alternative reuse concepts that were identified in the DEIS all have the potential to generate significant tax base dollars that would contribute to the continued operation and improvement of School District 111.
- 4.&5. These comments have been noted and will be considered as final reuse plans are developed.

U.S. ARMY ENGINEER DISTRICT, LOUISVILLE
MR. WILLIAM R. HAYNES
ENVIRONMENTAL PROTECTION SPECIALIST
P.O. BOX 59
LOUISVILLE, KENTUCKY 40201-0059

RE: WRITTEN COMMENTS FOR
FORT SHERIDAN, ILLINOIS - BASE CLOSURE AND REALIGNMENT
DRAFT ENVIRONMENTAL IMPACT STATEMENT

1 July 1990

Dear Mr. Haynes:

I respectfully request that the following remarks be made a part of the **DRAFT ENVIRONMENTAL IMPACT STATEMENT**.

1. Since there are four potential zoning interests that can affect any proposed plan, I believe that the Department of Defense should insist that the three local communities and the County of Lake sign an intergovernmental agreement as provided for in the Illinois Revised Statutes. It is titled, **LOCAL LAND RESOURCE MANAGEMENT PLANNING ACT § 5801 in Chapter 34, COUNTIES**, (copy attached). The reasoning for this action would be to assure current and future cooperation.

2. If the Department of Defense decides to subdivide the Ft. Sheridan site among several Federal jurisdictions that will have disposal of property jurisdiction in the future, the future use considerations should be included in the **LOCAL LAND RESOURCE MANAGEMENT PLAN**. There are two compelling reasons: **A.** All of the planning for the reuse plan will include the entire site and preclude an undesirable subdivision. **B.** The disposing agency may be able to streamline procedurally and monetarily the future disposition.

3. Before the Army Reserve is given authority to stay at Ft. Sheridan, several qualified developers should be invited to submit **DESIGN, BUILD AND CONSTRUCT PROPOSALS** to meet the mission requirements of the reserves. The proposed location of those facilities would be off the Ft. Sheridan site somewhere in Lake County, closer to the 294 Interstate Highway corridor. There are several reasons for this suggestion. **A.** Since some of the activities are already scheduled for off-site rental, why not consider all of the reserve components for relocation off-site? **B.** With emphasis on privatization, it may be more cost effective to consolidate the scattered functions and relocate them into quarters designed for the function. Some of the cost effective aspects might include: telephone switch, Fax, CCTV and data transmission, standard utility costs- ie. sewer

water, electricity and heating; maintenance and capital improvements; logistics; mission performance; mission phase-out or deactivation. C. With the reserve components off-site, it will be easier to plan for the effective reutilization of the site.

3. The communications security building, # 181, Consolidated Training Facility, on the S.W. corner should be converted to a **CIVILIAN DEFENSE COMMAND POST** because nothing like it exists in this region of Illinois. (attached is the **ZION NUCLEAR POWER STATION EMERGENCY INFORMATION BOOKLET**). The County has a response plan. This site would only enhance that plan and provide an appropriate response facility for any other large disaster in the Chicagoland region.

UNDER
SEPARATE
COVER

4. An opportunity exists to interact with another function of the Army Corps of Engineers-Chicago District Office. This interaction would be a **BEACH NOURISHMENT PLAN**. The SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION has just published "**A LAKE MICHIGAN SHORELINE EROSION MANAGEMENT PLAN FOR MILWAUKEE COUNTY WISCONSIN**". There is an interim report in the works for some portion of the Illinois shoreline in the Chicago District of The Army Corps of Engineers. **AND**, there is **STORMWATER MANAGEMENT PROJECT** in the process of contract letting that will generate a large amount of clean virgin fill material that could be relocated from the site of origin to the lake front to be used in a **stabilization/nourishment plan**. Similar in concept to utilizing the spoil material from the Milwaukee Metropolitan Sewerage District project.

Since Illinois has not had an effective **COSTAL ZONE MANAGEMENT PLAN**, perhaps the original **PUBLIC LAW 92-583** can be amended as part of the closure process to include some funding along with local participation dollars to address pollution problems, beach nourishment and bluff stabilization south from the Illinois/Wisconsin border to Wilmette harbor.

5. One of the local participants could be the LAKE COUNTY FOREST PRESERVE DISTRICT. Since one of the local concerns is that the lake front at Ft. Sheridan should be maintained available for public access, the LAKE COUNTY FOREST PRESERVE DISTRICT is the likely candidate. It is broad based with the necessary statutory authority. The District could assume some interim responsibility for not only the lake front but the bluff and vegetated ravines. Any monies that they are required to pay or volunteer should be applied toward a local contribution. Additionally, the District is exploring some options with the communities of North Chicago and Waukegan for the lake front from North Chicago's Water Treatment Plant north to the Waukegan Port District Marina. This would include also the closure of the FBI firing range. I believe with some diligence and creative effort **FEDERALLY**

AND LOCALLY a good plan can be designed, accepted, financed and implemented as part of the closure process that will benefit all interests-private, local, State and Federal.

5. The **USATHAMA REPORT** should be the sufficient reason to disapprove the continued presence of the ARMY RESERVE mission at Ft. Sheridan after the base closure. Any active duty or reserve missions that will be required in the Northern Illinois region should be assessed for task(s), consolidated when and where appropriate and relocated off base at new facilities that have state of the art communication equipment and links; that are more efficient to manage; cheaper and easier to maintain; and, that utilize, state of the art planning, training, and equipment to identify, monitor, manage and dispose of toxic and hazardous materials.

The current site is too diverse, too old, too underfunded, too understaffed and have been unmonitored too long to allow the military/federal government to remain as caretakers or tenants at Ft. Sheridan. They have individually and collectively demonstrated that neither can effectively address the long standing environmental problems much less make the transition to enlarge the scope of remediation work with new Army Reserve growth.

The existing military/federal bureaucracy precludes any efficiency of operation or confidence to the general public in their ability to identify, plan, fund/implement any hazardous waste remediation plan much less in the follow thru to ascertain any thoroughness or completion of tasks. The **military/federal bureaucracy** is a system of indifference that is the major contributing factor in not effectively managing the problems at Ft. Sheridan. If the ethic was there at one time and there has not been the money in the budget or enlightened management willing to acknowledge that environmental problems have existed or are continued to be ignored, how can lower level military and civilian personnel charged with the day to day responsibility maintain their enthusiasm. Further, when pet projects proposed by senior level personnel take precedence, lower level personnel cannot effectively buck the system with out jeopardy to their respective careers.

So, when one reads the **USATHAMA** report one is immediately struck by the lack of foresight or recognition of environmental concerns by the military/federal bureaucracy. Over the past decades, as civilians, we all became more environmentally aware and began addressing existing problems and planning ahead to preclude future problems. The **USATHAMA REPORT** is evidence that day to day functions were done for expediency and not in the light of environmental concern or policy; that few corrective actions were or have been

accomplished. Inadequate monies, materials or personnel were planned , budgeted or implemented to manage ongoing operations much less plan for the future or correct the ommissions of the past. It also appears that no standing GENERAL ORDERS were issued from the highest levels of the Pentagon Command nor the President nor Congress to correct the past or plan for the future.

9 I believe that the ARMY and ARMY RESERVE and most disappointingly the Department of Defense have violated the public trust because they don't adequately take care of " their own" first to set the standard or example for the rest of the public to follow. Therefore, they have lost the right to stay and continue the bad habits and practices of the past. Nor should they be given the opportunity to look for statutory loopholes to defer correcting actions of the past that the civilian population is hauled into court to correct.

There is no security function at FT. Sheridan that can stand as an excuse to not remediate the environmental ommissions and commissions of the past.

10 It is also in everyones' best interest that the NAVY NOT BE ALLOWED TO OCCUPY THE BASE HOUSING BECAUSE IT WOULD CONTINUE TO KEEP USAGE PRESSURE ON INADEQUATE AND FAILING FACILITIES AND THAT THE ARMY AND ARMY RESERVE MISSIONS MOVE TO NEW, RENTED QUARTERS ELSEWHERE SO THE BASE CAN BE CLEANED UP AND RESTORED AND MADE AVAILABLE FOR CIVILIAN USAGE AND ENJOYMENT. **THE CITIZENS, NOT THE MILITARY/FEDERAL BUREAUCRACY ARE THE REAL OWNERS OF THE PROPERTY AND THE ONES WITH THE CHECK BOOK PAYING THE TAB; AND, WHO WILL ALSO CONTINUE TO BE ABUSED FINANCIALLY AND ENVIRONMENTALLY UNTIL ALL THE HAZARDOUS WASTES ARE FULLY IDENTIFIED AND CLEANED UP.**

11 The military needs to complete the USATHAMA REPORT by funding and implementing the necessary studies to completely identify what is buried, what is leaching into the lake, and, what surface contamination that needs to be removed from the site. Then they must completely fund the remediation program.

RESPECTIVELY SUBMITTED BY:

JAMES C. MITCHELL, JR.,

Member Lake County Board, District # 1, and
Member Ft. Sheridan Commission

Residence:

1280 Ridgewood Drive
Highland Park, Ill 60035

RESPONSE TO LETTER FROM MR. JAMES MITCHELL, JR. (7/1/90)

1. The Department of Defense Office of Economic Adjustment has helped to form the Fort Sheridan Commission which includes representatives from local jurisdictions and a wide range of public and private interest groups. This commission has formed ten advisory panels, two of which are "public officials", and "planning and land use." These advisory panels will be active throughout the Fort Sheridan closure, detailed reuse planning and plan implementation stages. The commission advisory panels have been established to assure current and future cooperation between local jurisdictions and the wide range of public and private interest groups.

Use of the additional powers and authorities established by the Local Land Resource Management and Planning Act, including the preparation of a local land resource management plan, would seem to be an appropriate mechanism to be applied by the Commission to obtain and document final jurisdictional commitment to a preferred land use plan. However, the Department of Defense does not believe that they should mandate a specific approach to ensuring intergovernmental cooperation.

2. The Department of Defense has determined that it is in their best interest to maintain the expanded reserve center on site. This will allow for the continued use of existing facilities that are highly compatible with ongoing mission needs of the reserve, and will be much more cost effective than obtaining and developing a totally new site. The personnel that are to be relocated from Fort Sheridan to leased space in the Chicago area are involved in continuing services and functions relating to active Army units. These functions do not need to be collocated with the expanded reserve center to remain at Fort Sheridan.
3. Comment has been noted and will be considered by the Department of Defense if a formal proposal is submitted as the property disposition process continues.
4. The referenced beach nourishment plan, erosion management plan and stormwater management plan, and potential revision of the Coastal Zone Management Plan are beyond the scope of the action that is being evaluated in this EIS.
5. It is noted that the Lake County Forest Preserve District represents a potential candidate for assuming responsibility for various natural areas at Fort Sheridan. This potential should be explored in more detail as more definitive reuse plans are developed and implemented. At this time, the Fort Sheridan Commission is in the best position to identify the potential role of the Lake County Forest Preserve District.
6. The Reserve Component Area will be maintained and operated in conformance with all applicable environmental laws and regulations.
7. Comment noted.
8. The referenced USATHAMA report was prepared as part of DOD's extensive Installation Restoration Program. This program is designed to identify and correct environmental hazards that have developed over the years. Future operations will be conducted in compliance with all applicable environmental laws and regulations.

9. Comment noted.
10. The U.S. Navy has expressed significant interest in utilizing a portion of the extensive housing resources at Fort Sheridan. Their request will be considered by the Department of Defense as required under the laws and procedures that govern the transfer and/or sale of surplus government property, as summarized in Section 1.6.5 of the DEIS and this final document.
11. As discussed in Section 1.6.3 of the DEIS (and this FEIS), the Department of Defense is committed to completing the Installation Restoration Program at Fort Sheridan.

COMMUNITY FACILITIES

Elementary School District 111 will experience a decrease in attendance of approximately 450 pupils. This decrease will be distributed through grades Kindergarten - 8. This action will result in the elimination of Military Impact Aid (P.L. 81-874) and the possible elimination of an estimated 25 to 30 school related jobs (Highwood-Highland Park Education Association, 1989). However, the Superintendent of School District 111 has stated that the closure of Fort Sheridan will result in a positive economic impact because the reduction in expenditures made possible by the loss of students will be greater than the total loss in federal and state aid (telephone interview, Powell, 1990). The 1989 Military Impact Aid (P.L. 81-874) entitlement for School District 111 was approximately \$1.3 million, however, the total allocation was only approximately \$800,000. In 1989, state aid for the district totaled approximately \$664,000.

Because the closure of Fort Sheridan will reduce the number of students in the District by approximately 33 percent, the aid will decrease by a similar percentage which amounts to approximately \$27,000 in federal aid (apart from Military Impact Aid) and \$219,000 in state aid. The decrease in students will decrease Education Fund expenditures about 25 percent. The current annual School District 111 Educational Fund budget of approximately \$5.8 million would be reduced to approximately \$4.4 million (telephone interview, Powell, 1990). Elementary School District 111 serves 100% of the Fort Sheridan elementary students.

High School District 113, which also receives incoming freshman from four other elementary districts, would realize a four percent decrease in students as a result of the closure action.

Dr. Griff Powe
District 111 Sup-
erintendent

RESPONSE TO WRITTEN COMMENT FROM MR. GRIFF POWELL, SUPERINTENDENT-
ELEMENTARY SCHOOL DISTRICT 111 (NO DATE)

1. The information included in Section SC.4.8.3 of this FEIS has been updated to reflect the current information provided by Mr. Powell.



NORTHEASTERN ILLINOIS UNIVERSITY
5500 N. ST. LOUIS AVENUE • CHICAGO, ILLINOIS 60625 • (312) 583-4050

DEPARTMENT OF EARTH SCIENCES

U. S. Army Engineer District, Louisville
Mr. William Haynes, Environmental Protection Specialist
P.O. Box 59
Louisville, KY 40201-0059

June 28, 1990

Dear Mr. Haynes:

This letter is in response to FORT SHERIDAN, ILLINOIS - BASE CLOSURE AND REALIGNMENT, DRAFT ENVIRONMENTAL IMPACT STATEMENT.

The Environmental Panel of The Fort Sheridan Commission submitted a series of recommendations regarding the landfills, ravines and lakeshore at Fort Sheridan to the commission in December 1989 (copy attached).

As the Draft Environmental Impact Statement was published after the Environmental Panel report was submitted, I feel compelled to respond to it.

① It is my recommendation that the Army not only contract for an in-depth analysis of the landfills as was recommended by the Environmental Panel, but also contract for a full clean-up of the landfills prior to the disposal of the base.

Sincerely,

Charles W. Shabica
Chairman

cc Grace Mary Stern
John Porter

RESPONSE TO LETTER FROM NORTHEASTERN ILLINOIS UNIVERSITY (6/28/90)

1. As discussed in Section 1.6.3 of the DEIS, the Fort Sheridan environmental clean-up process is an ongoing program that involves three major steps under the provisions of the Installation Restoration Program. The continuing IRP process will be conducted independently of the closure and realignment actions, but will be completed before affected excess property is released for alternative use.

May 6, 1990

16

Army Engineer District, Louisville
Attn: William Ray Haynes
P.O.Box 59;
Louisville, Ky. 40201-0059

Sir;

While there has been much talk about closure of Fort Sheridan as an Army induction center, I feel this would be a mistake. Why?

①

I feel the Army, if it does not have need of all of the building's for newly inducted Army personell from the area it now serve's, it could very well maintain them with the troop's that are there should there be 100% need of it overnight.

Were it closed, I feel within 1 year someone would get and succed in tearing down all of the present building's & turn the land over to sub-divder's. If this were done we would be in sad shape were it needed again, NOW, RIGHT NOW, as it was on December 7, 1941.

When World War 1 ended, the major part of the Fort was closed and the rest of it held in Reserve as I feel it should be now. We do-not need anymore subdivison's.

You must never forget; A Fire Extinguisher is just something that just gather's dust until you need it and then you do-not have time to go buy one.

I can well remember men from Lake & Cook County, Il., working around the clock to expand Ft. Sheridan, Great Lake's Naval Training Center and Glenview Naval Air Station.

As for subdivison's both Countie's have more than they have need of now when it come's to Hospital's, School's, Sewer & Water. Were you to drive thru Lake & Cook County you would find cannot-go 1 block with out finding a home for sale.

That is why I said earlier, Fort Sheridan is like a Fire Extinguisher hanging on the wall, of no use until it is needed and then you need it, NOW, RIGHT NOW!

Let us keep & maintain what we have.

CC: The News Sun
100 W. Madison St.
Waukegan, Il. 60085

Lakeland Newspaper's
30 S. Whitney
Grayslake, Il. 60030

Respectfully,

Alvin H. Sherwood
Alvin H. Sherwood
Sergeant First Class, Retired
Co. D, 37th Tank Battalion
4th Armored Division
3rd. U.S. Army
General George S. Patton Jr.
Commanding
300 N. Grandview Dr.
Round Lake, Il. 60073

RESPONSE TO LETTER FROM MR. ALVIN H. SHERWOOD (5/6/90)

1. As discussed in Section 1.1 of the DEIS, the decision to close Fort Sheridan is beyond the scope of this study effort. However, your comments have been noted for the record.

Alice H. Sievert, Ph.D.
233 E. Washington
Lake Bluff, IL 60044

June 30, 1990

Mr. William R. Haynes
U.S. Army Corps of Engineers
CEORL-PD-R
P.O. Box 59
Louisville, Kentucky 40201-0059

RE: Ft. Sheridan, IL - Base Closure and Realignment Draft Environmental Impact Statement.

Dear Mr. Haynes,

As a member of the Transportation, Utilities and Infrastructure panel of the Porter Commission, I have become aware that a very wide range of factors must be considered in assessing the future environmental effects of the various plans for the disposition of Ft. Sheridan. This letter therefore identifies items that should to be included in the final Environmental Impact Statement (EIS), because they would be of value in making decisions regarding the re-use of the Ft. Sheridan site.

I assume that the final Environmental Impact Statement (EIS) will include an evaluation of all proposals submitted for re-use of the Ft. Sheridan site, even though the Porter Commission proposal may not be available before fall of 1990. Without careful consideration of all proposals submitted for base re-use, the EIS would be of little value.

Chapter 4 of the DEIS should be expanded to address the impact of different types, heights and densities of housing and of office/research/conference facilities (e.g. multi-story buildings of various heights each with adjoining blacktopped parking areas as well as one or two-story freestanding or clustered buildings), if these were sited on various areas of the fort.

Some of the underlying assumptions on which the DEIS was based should be reviewed, since they may not be justified under certain circumstances. Specifically, the DEIS assumes that the base re-use plan will not only be drawn up, but will also be implemented to conform to guidelines that would protect critically important natural resources, including wildlife habitats (See DEIS pages SU-5, 4-21), would prevent soil erosion (See DEIS page 4-20), and would safeguard Historic District Buildings (See DEIS page 4-23). Because the implementation of protective measures would be the responsibility of any future owner(s) of the Ft. Sheridan site, potential compliance problems associated with different forms of ownership and management should also be identified.

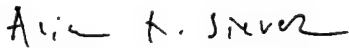
Alice H. Sievert, Ph. D.
233 E. Washington
Lake Bluff, IL 60044

June 30, 1990

④ Additionally, the final EIS should take into consideration that different portions of Ft. Sheridan lie within different jurisdictions, i.e. within Lake Forest, Highland Park, and unincorporated Lake County, and that Highwood claims ownership of some of these areas. Because each of these jurisdictions has its own priorities and procedures, it would be difficult to assure consistent enforcement of protective measures, unless a special use area were to be set up, which would be administered in perpetuity by a single governmental entity or board. Otherwise, the fragmentation of responsibilities for maintaining the environment and the historic district could tempt some future owner(s) to bypass the usage restrictions envisioned by the DEIS, because of monetary considerations.

If the various situations and factors outlined above are considered in the final EIS, the document would provide useful guidance to those who must decide between the different plans advanced for disposition of the Ft. Sheridan site.

Very sincerely,



Alice H. Sievert, Ph.D.

RESPONSE TO LETTER FROM ALICE SIEVERT (9/30/90)

1. The Final EIS will be completed prior to the availability of final plans by the Fort Sheridan (Porter) Commission or other entities. This is necessary to allow implementing actions to proceed according to the time schedules mandated by the Base Closure and Realignment Act. The EIS is not intended to provide an exhaustive analysis of detailed final reuse plans. Rather, it identified and evaluated a number of broad reuse concepts, the general feasibility of these concepts, and the type and relative extent of impacts that are likely to occur for three preferred or most likely reuse scenarios. The reuse plan ultimately developed by the Fort Sheridan Commission, the general reuse alternatives identified in the DEIS, and other plans that are likely to be forthcoming will all be considered by the DOD prior to final disposal of property at Fort Sheridan.
2. Chapter 4 of the DEIS discusses the impacts associated with the implementation of several conceptual reuse alternatives, the Fort Sheridan closure action, the Fort Benjamin Harrison realignment action and the Fort McCoy realignment action. The impact and control of building heights, types, densities, configurations and ancillary uses to serve planned buildings will be considered as more detailed reuse plans are developed, and ultimately be subject to compliance with the zoning regulations of the jurisdictions controlling the excess land at Fort Sheridan.
3. The referenced statements in the DEIS are based on the fact that there are numerous federal, state and local agency regulations and controls that are in place, or could be initiated to protect critical natural and cultural resources at Fort Sheridan. For example, the historic resources will be protected per the provisions of the ongoing Section 106 compliance process (see Section 1.6.4 of DEIS) which requires the federal government to ensure that adequate protective mechanisms have been identified and agreed to prior to release of these resources. Other examples include the availability of the National Flood Insurance Program and/or local development regulations to restrict inappropriate development of the flood-prone Lake Michigan shoreline; the potential designation of significant natural areas as a State Nature Preserve; and the use of local jurisdictional authority to prepare land use plans and to use a wide range of measures to implement the preferred land use plan including zoning and subdivision regulations and enforcement of building codes.
4. The DEIS recognizes and discusses the fact that Fort Sheridan property is located within four different jurisdictions. The Fort Sheridan Commission (as discussed in Section 2.3.1 of the DEIS) has been established to allow these local jurisdictions to work together to develop a reuse plan that has broad-based local support. Once this plan is finalized, appropriate implementation measures can be identified and adopted to help ensure that the area is utilized in conformance with the plan.

northeastern illinois planning commission

400 west madison street · chicago · illinois 60606 · (312) 454-0400 · FAX (312) 454-0411

MMITTEE

6/20/90

Department of the Army
Mr. William Haynes
P.O.Box 59
Louisville KY 40201

NIPC Project: 90A010
Project: Fort Sheridan

The project you submitted to the Commission for regional clearinghouse review is scheduled for consideration by our Governmental Services Committee at its meeting on Wednesday, 6/27/90, at 12:00 noon.

The draft review shows that some concerns about the project have been raised.

The Committee may adopt this finding as the final Commission action or, at its discretion, some other finding.

You may wish to have a representative at this meeting, though this is not required. It is possible that someone may question the review or the merits of the project in which case you or your representative may wish to respond.

We will notify you of the Governmental Services Committee action by letter immediately following their meeting.

Questions relating to Commission review activities should be directed to our Project Review Section.

Sincerely,

D. L. Washington
Deborah L. Washington
Director: Project Review

DLW:djt
Enclosure

Northeastern Illinois Planning Commission
Governmental Services Committee
June 27, 1990

Submittal: Fort Sheridan, Illinois - Base Closure and Realignment Draft
Environmental Impact Statement

Contact: U. S. Army Engineer District, Louisville, Mr. William R. Haynes,
Environmental Protection Specialist, P. O. Box 59, Louisville, Kentucky

Action Committee approval of the following review statement on the Draft
Requested: Environmental Impact Statement on the Closure of Fort Sheridan.

Submittal

The Fiscal Year 1993 closure of Fort Sheridan will make available for reuse one of the biggest and perhaps one of the most valuable - both in economic and land resources terms, properties along Lake Michigan. The Draft Environmental Impact Statement (DEIS) was prepared to identify the effect of this planned closure on the natural, social and cultural environment at Fort Sheridan, and the installations where Fort Sheridan services will be relocated. To a much lesser extent, the DEIS also considered a number of generalized reuse alternatives for the Fort Sheridan property.

Review Statement

The Commission's examination of the DEIS for the Fort Sheridan closure focused on several areas of regional concern:

- Water Quality: how will the closure and subsequent reuse of the Fort Sheridan property affect area water quality, particularly the water quality of area streams, waterways, and Lake Michigan?
- Open Space/Recreation/Natural Areas: how will the closure and subsequent reuse of the Fort Sheridan property improve public access to the Lake Michigan shoreline, increase area open space and recreational facilities, and preserve existing natural areas and identified resident endangered species?
- Governmental Impact: how will the closure and subsequent reuse of the Fort Sheridan property affect area communities, Lake County, the northeastern Illinois region, what mechanisms are suggested or are in place for affected governments, residents, to provide input to the DEIS and reuse planning process?

In response to these areas of regional concern, the Commission offers the following observations and recommendations.

Water Quality

- ① The contents of eight identified on-site landfill sites has largely been determined through secondary data. The DIES does state that at least two of the sites, and possibly others, may contain hazardous substances. The Commission believes that it is of the utmost importance that all hazardous wastes be removed to avoid adverse impacts on area water quality, particularly Lake Michigan, and any future re-utilization of the site.
- ② The Commission also believes that any major modification to the Fort Sheridan property - new construction, major rehabilitation and or redevelopment, be undertaken in such a manner so as not to worsen existing water quality problems nor increase runoff to levels exceeding pre-development conditions. To this end, the Commission recommends that site redevelopment meet applicable village, county, and/or state ordinances, including IEPA's erosion and sedimentation control specifications. Further, a nonpoint source management program of "best-management" practices should be implemented.

At minimum, soil erosion and sedimentation control provisions should:

- require soil erosion and sediment control measures for all new developments consistent with the recommendations contained in the "Standards and Specifications for Soil Erosion and Sedimentation Control" published by the Illinois Environmental Protection Agency in 1987 (the Greenbook) and the "Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control" published in 1988;
- require that erosion and sediment control measures be in place as part of land development process and
- before significant grading or disturbance is allowed. NIPC's Model Detention Ordinance requires that detention basins be built first before land development begins to catch any eroded sediment during construction;
- minimize areas disturbed and minimize the time of disturbance;
- require the early implementation of soil stabilization measures on disturbed areas, where practicable;
- require routine maintenance of all erosion and sediment control practices.

- require inspection of construction sites at critical points in the development process to ensure that measures are being correctly employed and maintained; and
- include an effective enforcement mechanism.

A minimum non-point source management program should:

- include control of runoff volume, rate, and quality in the purpose statement;
- provide adequate storage for the 100-year, 24-hour design event (typically 3.5 to 4.5 inches over the watershed);
- use hydrograph-based methodologies in combination with Illinois State Water Survey Bulletin 70 rainfall data in design of stormwater systems;
- reduce post-development discharge rates for the 24-hour, one percent event to 0.15 cfs per acre of watershed;
- limit post-development discharge from events less than the two-year, 24-hour event to 0.04 cfs per acre of watershed;
- require detention designs to maximize water quality mitigation benefits, with a preference for wet bottom basins over dry basins;
- promote drainage hierarchy which minimizes runoff volumes and encourages natural drainage practices;
- prohibit detention in the floodway unless the above criteria are met;
- require thorough analysis of on-stream detention basins and discourage them on streams draining more than 1 square mile;
- prevent direct discharge of undetained stormwater into wetlands; and
- for new detention facilities, require formal maintenance contracts.

Open Space/Recreation/Natural Areas

- (3) Any proposed reuse of the Fort Sheridan property should ensure the preservation of the site's natural areas and the protection of identified threatened and endangered species.
- Given the potential for using portions of the Fort Sheridan property to enhance the Lake Michigan shoreline and public access to the shoreline, the Commission recommends that decisions regarding the reuse of the

property and its future ownership ensure the preservation of the existing shoreline and other areas of the site with significant open space resources/characteristics. Improved public access should be provided consistent with natural resources and transportation constraints.

- Plan D for the reserve component area would potentially affect habitat associated with Jane's Ravine. The DEIS states that impacts can be minimized through careful site management, appropriate construction techniques and mitigation. The actions to be taken to assure such avoidance should be subject to outside technical review and approval as a condition of their implementation. The Commission supports such mitigation as transfer of ownership of sensitive areas and associated management or buffer areas to appropriate governmental or private management agencies or by the use of deed restrictions on development of these areas.
- 4 ■ Historic district buildings, when deactivated, should be secured and maintained to avoid deterioration until final reuse plans can be developed and implemented.
- 5 ■ Reuse of the Historic District should be consistent with the standards of the Secretary of the U. S. Department of the Interior.
- 6

Governmental Impact

- The DEIS should be expanded to more fully identify and document the activities of the Fort Sheridan Commission as the official mechanism for the development of a local government supported reuse plan for the Fort Sheridan property.
- 7
- The DEIS should not be considered complete or the process closed until such time as the Fort Sheridan Commission recommended reuse plan has been completed and incorporated into the DEIS.
- 8
- While Fort Sheridan is located in a highly transit accessible location, access by roadway is greatly limited. Reuse options for the property should be developed within these transportation constraints.
- 9
- The listing of possible reuses contained in the DEIS should be clearly identified as only a cursory, incomplete listing. Reference should be made to the development of reuse alternatives by the Fort Sheridan Commission.
- 10

RESPONSE TO LETTER FROM NORTHEASTERN ILLINOIS PLANNING COMMISSION
(6/20/90)

1. The referenced landfill sites will be further investigated through the ongoing Installation Restoration Program (see Section 1.6.3 of the DEIS and this document). Completion of the IRP process will result in the identification of hazards, and appropriate remedial plans.
2. After surplus property is transferred to any local jurisdiction(s), all future development, redevelopment or rehabilitation activities will be subject to applicable local, regional and state ordinances. Local jurisdictions will also consider the recommendation to develop and implement a non-point source management program of "best-management" practices and enforcement of the specific soil and sedimentation control provisions specified in your letter.
3. Concur. This assumption was noted in several locations in the DEIS, and will be considered in the development and approval of a final reuse plan.
4. If Area D is selected for the Reserve Center, the design and construction of new facilities in this area will be coordinated with appropriate review agencies.
5. We concur, and this statement was in Section SC.4.6.3 of the DEIS.
6. Concur. This will be carried out through the provisions of Section 106 of the National Historic Preservation Act and the Programmatic Agreement signed by the Advisory Council on Historic Preservation, the National Conference of State Historic Preservation Officers and the Army.
7. The Fort Sheridan Commission is an advisory group which includes representatives from local jurisdictions and a wide range of public and private interest groups. This group will be actively involved throughout the Fort Sheridan closure, detailed reuse planning and plan implementation stages. A description of the Commission and the ten advisory panels was included in the DEIS under Section 2.3.1.
8. See response to question number 1, letter from Ms. Alice Sievert (9/30/90).
9. Concur.
10. Reference to the development of reuse alternates by the Fort Sheridan Commission and that other reuse plans are likely to be forthcoming was included in the DEIS under Section 2.3.1.

5.5.3 FORT BENJAMIN HARRISON PUBLIC MEETING

Lawrence Central High School - Indianapolis, Indiana
June 11, 1990 - 7:00 PM

Page

Speakers in Order Presented:

1. Mr. Thomas W. Bartlett, Division of Planning,
City of Indianapolis 5-83
2. Mr. Michael D. Flanagan, Castleton East Civic Organization 5-83
3. Ms. Mary J. Snow 5-83

FORT BENJAMIN HARRISON PUBLIC HEARING

SUMMARY OF COMMENTS AND RESPONSES

<u>Speaker, Comment & Transcript Reference</u>	<u>Response</u>
1. <u>Mr. Thomas W. Bartlett (Department of Metropolitan Development, Division of Planning, City of Indianapolis)</u>	
1a. Stated that he had reviewed the DEIS, and found it to be very thorough; and that he will submit list of technical corrections in writing. (Page 2, Paragraph 8)	1a. See letter from City of Indianapolis dated June 27, 1990 for specific comments and responses.
1b. Are their any plans for land acquisition at Fort Benjamin Harrison as a result of the planned action?	1b. No, the installation has adequate space available to meet needs identified to date.
2. <u>Mr. Michael D. Flanagan (Castleton East Civic Organization)</u>	
2a. Stated that the Castleton East Civic Organization had received a meeting notification, and that he was present to listen and determine the relationship of the proposed action to their organization. (Page 3, Paragraph 3)	2a. No response required.
2b. How many people will be transferred to Fort Benjamin Harrison? (Page 3, Paragraph 5)	2b. Approximately 1,400 enlisted and civilian personnel, and approximately 2,900 dependents.
3. <u>Ms. Mary J. Snow (Self)</u>	
3a. Can the traffic impacts be reduced by staggering work hours? (Page 4, Paragraphs 3 & 5)	3a. Staggering working hours is an effective method to reduce traffic congestion. This technique, as well as other traffic impact mitigation measures will be considered by the installation as realignment plans are implemented.

Speaker, Comment & Transcript Reference

Response

3b. Stated that more police should be assigned to direct traffic around the installation.
(Page 3, Paragraph 7)

3b. The use of police to direct traffic may assist in the movement of traffic. Use of this technique is subject to local jurisdiction determination of need and approval.

5.5.4 FORT BENJAMIN HARRISON WRITTEN COMMENTS

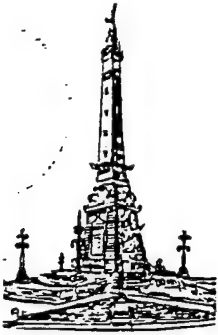
Page

State Agencies:

1. City of Indianapolis 5-87
2. Indiana Department of Environmental Management 5-93
3. Indiana Department of Natural Resources,
Division of Historic Preservation and Archaeology 5-95

Local Agencies and Individuals:

4. Mr. Harry E. Wilson 5-99



CITY OF INDIANAPOLIS

WILLIAM H. HUDNUT, III
MAYOR

STUART RELLER
ADMINISTRATOR

DEPARTMENT OF METROPOLITAN DEVELOPMENT
DIVISION OF PLANNING
2021 CITY-COUNTY BUILDING
INDIANAPOLIS, INDIANA 46204
(317) 236-5151

June 27, 1990

Mr. Chuck Schumann
Public Affairs Officer
Attn: CEORL-PA
P. O. Box 59
Louisville, KY 40201-0059

Dear Mr. Schumann:

On behalf of the Division of Planning, I have reviewed the attached draft Environmental Impact Statement (E.I.S.) for the Fort Sheridan base closure and its partial realignment with Fort Benjamin Harrison. The sections which apply to Fort Benjamin Harrison are: 1.5.2, 2.4.1, 2.4.2, H.3.2 through H.3.8, and H.4.2 through H.4.8.

Overall, the document is thorough and accurate. However, I have listed below a few concerns and/or questions which should be addressed by the Army Corps before this document is finalized.

<u>Page Number(s)</u>	<u>Concern or Question</u>
3-48	① Map shows only the <u>approximate</u> extent of the aquifer. Labeling should so indicate.
3-49	② Surface Water -- Should not Indian Lake also be mentioned somewhere in this section?
3-51	③ In the third paragraph, a 1980 survey for pesticide and PCB contamination of streams within the fort is mentioned. -- would it not be prudent to conduct a new survey now that ten years have passed?

- 3-51 ④ | Why was no attempt made to delineate jurisdictional wetland areas located on Fort Benjamin Harrison?
- 3-64 ⑤ | It would be helpful to know where the 25 underground and 10 aboveground storage tanks are located, and to know whether or not they will be required to meet the same new EPA standards as private storage tanks.
- 3-68
to
3-71 ⑥ | Solid Waste -- No mention is made about possible reuse of the currently operating land-fill site.
- 3-74 ⑦ | Statement in first paragraph erroneously states that planning "and zoning are administered on a township basis". Planning and zoning are actually administered on a County-wide basis.
- 3-76 ⑧ | In the first paragraph, the existing Comprehensive Plan is referred to as the "1979 comprehensive plan". Actually, the most recent plan was adopted in 1984. However, that plan was recently revised and replaced by a new land use plan for Lawrence Township which was adopted by the Metropolitan Development Commission on March 7, 1990.
- 3-77 ⑨ | Zoning of Adjacent Areas Map -- see attached photocopy of this map for corrections.
- 4-30 ⑩ | What is the source of the 75.5 MGD figure, and is it accurate? (It seems rather large)
- 4-32 ⑪ | Typo -- the word "be" in the seventh line of the third paragraph should be changed to "by".

4-34

(12)

Petroleum, Oils, and Lubricants Storage -- this paragraph refers to measures being taken to remove or repair leaking storage tanks, yet no mention of leaking storage tanks was made in the Hazardous Materials Section of the EIS (Section H.7.3, page 3-64). What substance is leaking and where are the leaks occurring?

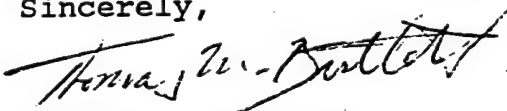
4-35

(13)

Regarding the referenced "detailed traffic engineering study", The Division of Planning's Transportation Section recommends that it and the Indianapolis Department of Transportation be consulted prior to initiation of a study (see attached copy of memo dated June 14, 1990 from Michael Peoni).

Thank you for providing the opportunity to comment on this draft E.I.S. If you have any questions or comments, please contact me.

Sincerely,










Thomas M. Bartlett

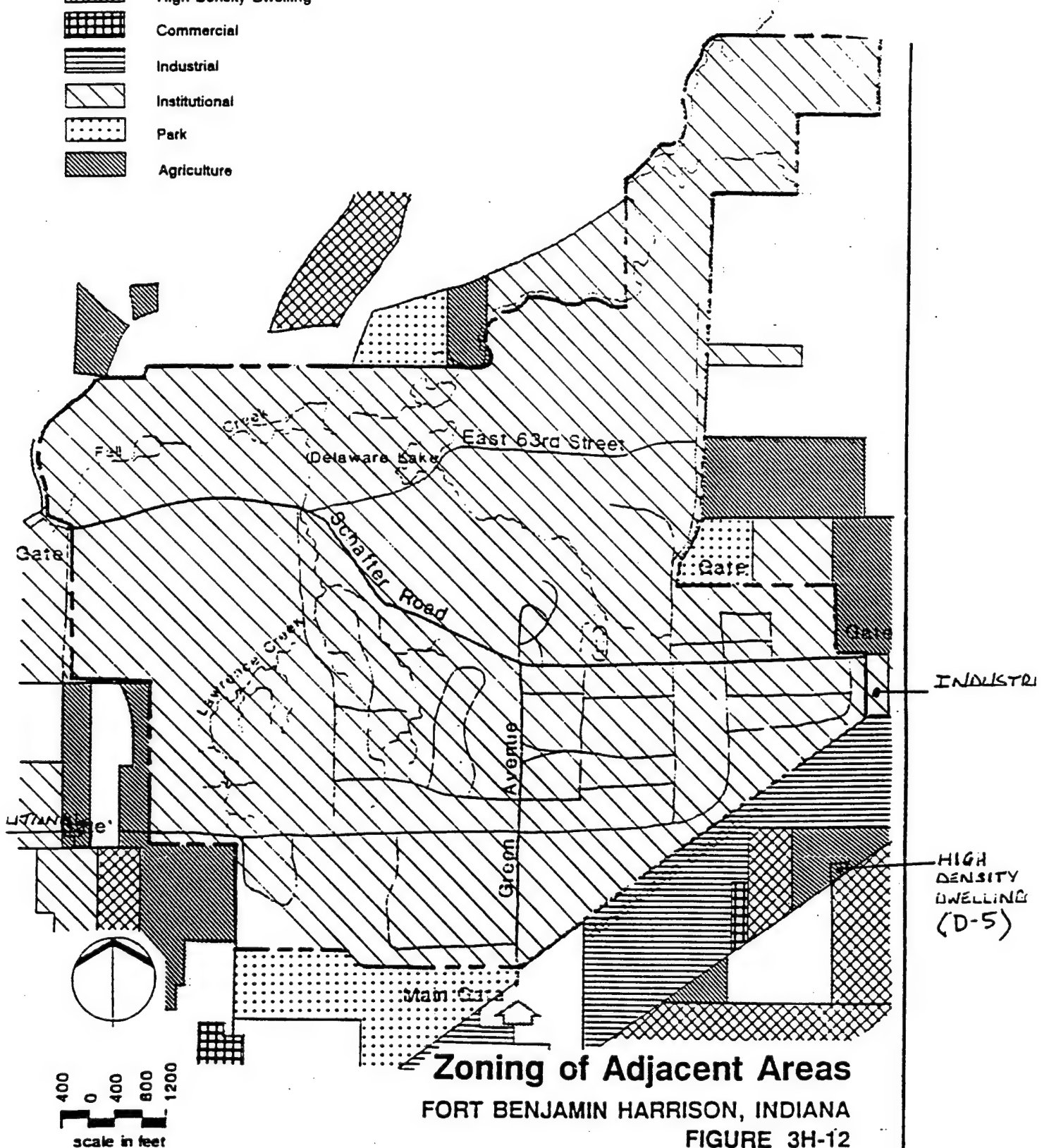
TMB:ng

Attachment

cc: M. D. Higbee
Stuart Reller
Clarke Kahlo
Mike Peoni

LEGEND

-  Low Density Dwelling
-  High Density Dwelling
-  Commercial
-  Industrial
-  Institutional
-  Park
-  Agriculture



Zoning of Adjacent Areas
FORT BENJAMIN HARRISON, INDIANA
FIGURE 3H-12

RESPONSE TO LETTER FROM CITY OF INDIANAPOLIS, INDIANA (6/27/90)

1. Correction was made to Figure 3H-1.
2. Reference to Indian Lake has been incorporated in Section H.3.4.2 of this FEIS, and to Figure 3H-2.
3. Since Fort Benjamin Harrison is realigning and not closing, issues like these will be addressed as part of the Fort Benjamin Harrison environmental compliance program or as part of the Army's Installation Restoration Program.
4. There is no anticipated impact on the wetlands at Fort Benjamin Harrison. A site evaluation will be conducted and all necessary permits applied for prior to construction of any new facility.
5. A map of the underground storage tank (UST) locations at Fort Benjamin Harrison was not deemed necessary for the purpose of this EIS. USTs owned by the Department of Defense are subject to the same Environmental Protection Agency (EPA) and state regulatory agency standards as privately owned USTs.
6. Reuse of the landfill sites at Fort Benjamin Harrison is not an issue at this time because fort Benjamin Harrison is not closing.
7. Correction has been made in Section H.3.8.3 of this FEIS.
8. Correction has been made in Section H.3.8.3 of this document.
9. We have reviewed the referenced corrections to Figure 3H-12. These changes would not have any significant impact on the reuse alternatives described and evaluated in the DEIS, or other conclusions or statements. It is anticipated that zoning patterns around the installation will continue to experience relatively small changes as a result of individual rezoning cases.
10. The 75.5 MGD figure should have been 57.5 MGD. This change has been incorporated in Section H.4.4.1 of this FEIS. This information was obtained from a document published by the U.S. Geological Survey, Water-Resources Investigations Report 83-4144, entitled Availability of Water from the Outwash Aquifer, Marion County, Indiana, 1983.
11. Correction has been made in Section H.4.5.3 of this FEIS.
12. Section H.3.7.3, Page 3-64 indicated that 14 underground tanks are pending action on "removal or repair." These tanks contain various types of petroleum products. The specific details regarding these tanks, their contents and location are documented and available through the Louisville District Office, Corps of Engineers. The text in Section H.4.7.3 has been revised to clarify this issue.
13. The referenced traffic engineering study has been completed since the release of the DEIS. The installation will coordinate study conclusions with applicable agencies as appropriate.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

June 28, 1990

105 South Meridian Street
P.O. Box 6015
Indianapolis 46206-6015
Telephone 317-232-8603

Mr. William R. Haynes, CEORL-PD-R
Department of the Army
U.S. Army Engineer District, Louisville
Corps of Engineers
P.O. Box 59
Louisville, Kentucky 40201-0059

Re: Fort Sheridan, Illinois-Base
Closure and Realignment
Draft Environmental Impact Statement

Dear Mr. Haynes:

We have reviewed the Draft Environmental Impact Statement for the Base Closure at Fort Sheridan, Illinois, and the relocation of major units to Fort Benjamin Harrison, Indiana. The Indiana Department of Environmental Management had also reviewed and commented on this project through the scoping process as one of the initial Agencies Contacted.

① The Draft Environmental Impact Statement clearly describes the environmental effects of the impacts related to Fort Benjamin Harrison realignment action. It is the judgement of this office that Fort Benjamin Harrison realignment will have minor adverse environmental impacts, (Not Significant), on Water and Biotic Quality.

We thank you for this opportunity to comment on this Environmental Impact Statement. If you have any questions or comments please feel free to contact Mr. Bill Klages at 317/243-5027.

Sincerely,

David P. Nelsen
Assistant Commissioner
Office of Water Management

BK/bsh
Project No. 692

An Equal Opportunity Employer

RESPONSE TO LETTER FROM INDIANA DEPARTMENT OF ENVIRONMENTAL
MANAGEMENT (6/28/90)

1. Comment has been noted.



INDIANA DEPARTMENT OF NATURAL RESOURCES

PATRICK R. RALSTON, DIRECTOR

Division of Historic Preservation
and Archaeology
East Ohio Street, Suite 880
Indianapolis, Indiana 46204
317-232-1646

June 15, 1990

Mr. William R. Haynes
U. S. Army Corps of Engineers
CEORL-PD-R
Post Office Box 59
Louisville, Kentucky 40201-0059

Dear Mr. Haynes:

We have reviewed the Draft Environmental Impact Statement (EIS) for the closure of Fort Sheridan, Illinois, and its realignment to Fort Benjamin Harrison in Marion County, Indiana.

Thank you for providing this document for our review. Our office has had the opportunity to comment on two elements of the realignment from earlier submissions. The two submissions were the proposed construction of the enlisted barracks with administration and supply areas and the proposed rehabilitation of Building #655 (see enclosed copies of our responses). We requested more information on the rehabilitation of Building #655, but to date, have not received a response.

We will be happy to review and comment on the other projects involved in the realignment project, which were briefly outlined in the EIS, on a site specific basis as detailed work plans are developed to ensure conformance with Section 106 of the National Historic Preservation Act.

We appreciate the opportunity to be of service.

Very truly yours,

Patrick R. Ralston
State Historic Preservation Officer

PRR:SBG:vk

Enclosures



INDIANA DEPARTMENT OF NATURAL RESOURCES
Division of Historic Preservation
and Archaeology
1 East Ohio Street, Suite 880
Indianapolis, Indiana 46204

PATRICK R. RALSTON, DIRECT

December 21, 1989

Marilyn Lewis
Department of the Army
U.S. Army Engineer District, Louisville
Corps of Engineer
Post Office Box 59
Louisville, Kentucky 40201-0059

Dear Ms. Lewis:

We have reviewed the proposed construction of enlisted barracks with administration and supply areas located at Fort Benjamin Harrison, Marion County, Indiana.

② No known historical, architectural, or archaeological sites listed on or eligible for inclusion in the National Register of Historic Places will be affected by this project. If any archaeological artifacts are uncovered during construction, work will stop and the discovery will be reported to our Division of Historic Preservation and Archaeology.

We appreciate the opportunity to be of service.

Very truly yours,

Patrick R. Ralston
State Historic Preservation Officer

PRR:SBG:tw

"EQUAL OPPORTUNITY EMPLOYER"



DEPARTMENT OF NATURAL RESOURCES
Division of Historic Preservation
Archaeology
100 East Ohio Street, Suite 880
Indianapolis, Indiana 46204

PATRICK R. RALSTON, DIRECTOR

September 11, 1989

Charles D. Raney
Lieutenant Colonel
Engineer Director of Installation
Support
Department of the Army
US Army Soldier Support Center
Fort Benjamin Harrison, Indiana 46216

Dear Lt. Col. Raney:

We have reviewed the proposed rehabilitation of building #655 at Fort Benjamin Harrison located in Indianapolis, Marion County, Indiana.

Building #655 is located within the Fort Benjamin Harrison Historic District and is considered to be a contributing structure to the district. All rehabilitation work must conform with the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings.

To enable us to comment on the effect the proposed rehabilitation will have on this structure, please provide the following:

- 1) Construction plans and a description of how the stairs for #655A, B and C will be enclosed and fire rated. Also provide a picture or description of the proposed fire rated door.
- ③ 2) A description of how and with what materials will the plaster surfaces in #655A Hall, #655B Hall and #655C Bedroom 1, 3 and the Living Room be repaired.
- 3) A description of how exterior and interior woodwork and hardware will be stripped, prepared and painted.
- 4) A description of where the air cooled water chiller will be installed. What type of piping or ductwork will be used?

"EQUAL OPPORTUNITY EMPLOYER"

RESPONSE TO LETTER FROM INDIANA DEPARTMENT OF NATURAL RESOURCES,
DIVISION OF HISTORIC PRESERVATION AND ARCHAEOLOGY (6/15/90 AND ATTACH-
MENTS)

1. Site specific plans will be provided for review as they are developed.
2. Comment noted.
3. Comment noted. This will be carried out through the provisions of Section 106 of the National Historic Preservation Act and the Programmatic Agreement signed by the Advisory Council on Historic Preservation, the National Conference of State Historic Preservation Officers and the Army.

2120 N Callow Ave
Bremerton, WA 98312-2908
June 26, 1990

Mr William R Haynes
US Army Corps of Engineers
CEORL-PD-R
P.O. Box 59
Louisville, KY 40201-0059

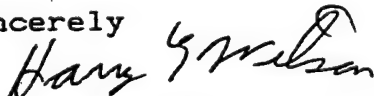
Dear Sir

Thank you for the opportunity to comment on the Draft Environmental Impact Statement on the Fort Sheridan, IL Base Closure and Realignment.

- ① Pages 2-5 and 2-6 were missing from the statement.
- ② On page 3-30, Figure 3S-9, it says see Figure 3S-18 for Detail, where is Figure 3S-18 located?
- ③ On page 3-70, why is recycling not an option for Fort Benjamin Harrison?
- ④ On page 4-13, section SC.4.7.6, will any of the demolition wastes be recycled to help save landfills?
- ⑤ On page 4-37, section H.4.7.6, Recycling should be required for Fort Benjamin Harrison, both normal wastes and demolition wastes.
- ⑥ The closed portion for Fort Sheridan should be converted into academic, offices, cultural arts and housing areas for reuse.
- ⑦ The retirees would lose the Post Exchange at Fort Sheridan but the Navy Exchange at Great Lakes could easily handle them.

Thank you for your time and consideration.

Sincerely



Harry E Wilson
2120 N Callow Ave
Bremerton, WA 98312-2908

RESPONSE TO LETTER FROM MR. HARRY E. WILSON (6/26/90)

1. Pages 2-5 and 2-6 (Figure 2-2) were included in the master copy of the DEIS, and were inadvertently left out of your copy, probably as a result of a collating error. The omitted figure illustrated the general location and boundaries of the Reserve Component Area alternatives.
2. The reference to Figure 3S-18 should be, See Figure 3S-14 for Detail. This change has been made in this FEIS.
3. Evaluation of waste recycling is beyond the scope of this EIS.
4. Consideration will be given to the feasibility of recycling demolition waste.
5. Comment noted.
6. The reuse alternatives considered by the DEIS included a mixed use alternate which would accommodate academic, office, cultural arts, and housing areas.
7. The loss of on-post services, such as the commissary and post exchange will be offset by the availability of similar facilities at the Great Lakes Naval Base.

5.5.5 FORT McCOY WRITTEN COMMENTS

Page

State Agencies:

1. State of Wisconsin, Department of Natural Resources 5-103



State of Wisconsin

DEPARTMENT OF NATURAL RESOURCES

Western District Headquarters
1300 West Clairemont Avenue
Call Box 4001
Eau Claire, WI 54702-4001

Carroll D. Besadny
Secretary

June 1, 1990

File Ref: 1650-2

Mr. William R. Haynes
U.S. Army Corps of Engineers
GEORL - PD - R
P.O. Box 59
Louisville, KY 40201-0059

Dear Mr. Haynes:

RE: Fort Sheridan, IL Base Closure, Draft Environmental Impact Statement (DEIS)

The department has reviewed the above DEIS with respect to its potential effects to ongoing operations at Fort Mc Coy, Monroe County, Wisconsin.

Section 1.2.2, Scope of the DEIS, #2, speaks to a contained analysis of cumulative impacts at Fort Benjamin Harrison resulting from planned realignment actions from Fort Sheridan and Fort Jackson. We generally agree that environmental effects to Fort Mc Coy from assuming realignment activities from Fort Sheridan will, in themselves, not be significant. However, we are concerned about potential cumulative effects at Fort Mc Coy and surrounding areas resulting from several possible new expansion initiatives including that associated with Fort Sheridan Base Closure.

The prospect of a substantial increase in the Fort Mc Coy mission and associated on-base and off-base military activities is demonstrated by the following:

1. Fort Mc Coy candidacy with three other sites nation-wide for permanent stationing of approximately 4,000 troops for the Joint Readiness Training Center (JRTC) initiative.
2. Western European demobilization and the potential for troop or mission reassignment to domestic bases, including Fort Mc Coy.
3. Current Fort Mc Coy initiatives to lease public lands adjacent to Fort Mc Coy property boundary for military training activities.
4. Fort Sheridan Base Closure and associated mission and related personnel relocation to Fort Mc Coy.

We appreciate that it is impossible to predict with certainty if any of these initiatives will ultimately result in changes at Fort Mc Coy. However, if they all occur, it could cumulatively result in major significant effects in on-base military activity intensity, increase the need for off-base public lands to handle training overflow demands and effect nearby local communities who would be called on to absorb substantial population increases for both military and civilian employees and their families. The ability for communities to provide housing, schools, and other related services for a combination of all these initiatives is unknown. The full extent or demand for training on adjacent public lands, which are managed by the state and county governments for multipurpose objectives, and the potential environmental effects is also unknown.

1 Accordingly, the department recommends that a cumulative analysis of potential effects considering all possible Fort Mc Coy expansion scenarios be prepared and included as part of the Fort Sheridan Base Closure environmental review process. This would appear to be a way to present a reasonable and foreseeable full scale impact analysis in the DEIS for Fort Mc Coy, including that associated with Fort Sheridan Base Closure.

The department appreciates the opportunity to comment on the DEIS. If you have questions regarding our comments, please direct them to Mr. Tom Lovejoy, Environmental Impact Coordinator at (715) 839-3747.

Sincerely,



Donald R. Winter
Deputy Director

c: C.D. Besadny
J. Kurtz - LC/5
K. Curtner - EA/6
Colonel Raymond G. Boland, U.S. Army, Installation Commander,
Fort Mc Coy, Sparta, WI 54656

RESPONSE TO LETTER FROM STATE OF WISCONSIN, DEPARTMENT OF NATURAL
RESOURCES (6/1/90)

1. The scope of this study is limited to evaluating the direct, indirect and cumulative impacts of the current proposed action as summarized in Section 1.2.1 of the DEIS. The planned realignment of personnel to Fort McCoy from Fort Sheridan is not expected to stimulate or reduce the potential for Fort McCoy to be selected to accommodate future realignment initiatives. It is not possible to accurately predict future realignment actions that may impact Fort McCoy at this time. As future actions are identified, they will be subject to further environmental evaluation.

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**Abbreviations,
Acronyms and Index**

ABBREVIATIONS, ACRONYMS AND INDEX

I.1 Abbreviations and Acronyms

AAFES	- Army-Air Force Exchange Service
ADCG	- Airfield Departure Control Group
ADT	- Average Daily Traffic
AEHA	- Army Environment Hygiene Agency
AIT	- Advance Individual Training
AMCCOM	- Armament, Munitions and Chemical Command
AMEDD	- Army Medical Department
AMSA	- Area Maintenance Support Activities
ANL	- Argonne National Laboratory
AR	- Army Regulation
ARRTC	- Army Reserve Readiness Training Center
ASC	- Area Support Center
AWOL	- Away Without Leave
BLDG.	- Building
BOD	- Biochemical Oxygen Demand or Beneficial Occupancy Date
BRACO	- Base Realignment and Closure Office
Btu	- British Thermal Unit
C & NW	- Chicago and Northwestern Railroad
CEQ	- Council on Environmental Quality
CERL	- Construction Engineering Research Laboratory
CRF	- Cod of Federal Regulations
cfs	- Cubic Feet per Second
CHAMPUS	- Civilian Health and Medical Program of the Uniform Services
CID	- Criminal Investigation Division
DA	- Department of the Army
DEIS	- Draft Environmental Impact Statement
DEPT.	- Department
DNR	- Department of Natural Resources
DOD	- Department of Defense
DOL	- Directorate of Logistics
DRMO	- Defense Reutilization and Marketing Office
ECS	- Equipment Concentration Site
EIFS	- Economic Impact Forecasting System
EIS	- Environmental Impact Statement
EOD	- Explosive Ordnance Detachment
EPA	- Environmental Protection Agency
F	- Fahrenheit
FEIS	- Final Environmental Impact Statement
FMV	- Fair Market Value
Ft.	- Fort
ft.	- Foot/Feet
ft ²	- Square Feet
FY	- Fiscal year

Abbreviations and Acronyms (Con't)

gpcd	- Gallons Per Capita Per Day
GPD	- Gallons Per Day
GPM	- Gallons Per Minute
GSA	- Government Services Administration
HQ	- Headquarters
HSC	- Health Services Command
IDEM	- Indiana Department of Environmental Management
INAI	- Illinois Natural Areas Inventory
IPD	- Indianapolis Police Department
IPS	- Indianapolis Public School
IPTC	- Indianapolis Public Transportation Corporation
IRP	- Installation Restoration Program
IRSS	- Indiana Regional Sewer System
ISCP	- Installation Spill Prevention Control Plan
ISPCB	- Indiana Stream Pollution Control Board
IWC	- Indianapolis Water Company
IWR	- Institute for Water Resources
KV	- Kilovolt
KVA	- Kilovolt-ampere
KW	- Kilowatt
KWH	- Kilowatt-hours
l	- Liter
lb.	- Pound
lbs.	- Pounds
LOS	- Level of Service
MATES	- Mobilization and Training Equipment Site
MCA	- Military Construction, Army
MEDDAC	- Medical Department Activity
METRA	- Metropolitan Rail
mg	- Milligram
MGD or mgd	- Million Gallons per Day
mm	- Millimeter
MSD	- Metropolitan School District
MTMCTEA	- Military Traffic Management Command Transportation Engineering Agency
MVA	- Megavolt-ampere
N/A	- Not Applicable
NAAQS	- National Ambient Air Quality Standards
NAF	- Nonappropriated Fund
NCO	- Non-Commissioned Officer
NEPA	- National Environmental Policy Act
NHL	- National Historic Landmark
NHPA	- National Historic Preservation Act
NRHP	- Nation Register of Historic Places
NSSD	- North Shore Sanitary District
NWI	- National Wetlands Inventory
OCE	- Office of Chief of Engineers

Abbreviations and Acronyms (Con't)

OEA	- Office of Economic Adjustment
PA	- Programmatic Agreement
PCB	- Polychlorinated biphenals
POL	- Petroleum, Oil, and Lubricants
POV	- Privately Owned Vehicle
PSI	- Pollutant Standards Index
psi	- Pounds per Square Inch
PX	- Post Exchange
RCRA	- Resource Conservation and Recovery Act
RFP	- Request for Proposal
ROD	- Record of Decision
SEA	- Socioeconomic Effects Analysis
SHPO	- State Historic Preservation Officer
SMA	- Standard Metropolitan Area
SU	- Special Use
TASC	- Training and Audiovisual Support Center
TDA	- Temporary Duty Assignment
TMDE	- Test Measurement Diagnostic Equipment
TRADOC	- Training and Doctrine Command
UIC	- University of Illinois at Chicago
US	- United States
USACFSC	- United States Army Community for Family Support Center
USAISC	- United States Information Systems Command
USARC	- United States Army Reserve Center
USAREC	- United States Army Recruiting Command
USARG	- United States Army Readiness Group
USATHAMA	- United States Army Toxic and Hazardous Waste Material Agency
USFWS	- United States Fish and Wildlife Service
USGS	- United States Geological Survey
UST	- Underground Storage Tank
WWII	- World War II
yr.	- Year

I.2 Index

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Appendices

Appendix A

Base Closure and Realignment Act

PUBLIC LAW 100-526—OCT. 24, 1988

102 STAT. 2623

Public Law 100-526
100th Congress

An Act

To provide certain additional fiscal year 1989 defense authorization policies, to provide procedures to facilitate the closure and realignment of obsolete or unnecessary military installations, and for other purposes.

Oct. 24, 1988
[S. 2749]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE

This Act may be cited as the "Defense Authorization Amendments and Base Closure and Realignment Act".

Defense
Authorization
Amendments
and Base Closure
and
Realignment
Act.
10 USC 2687
note.

TITLE II—CLOSURE AND REALIGNMENT OF MILITARY INSTALLATIONS

SEC. 201. CLOSURE AND REALIGNMENT OF MILITARY INSTALLATIONS

The Secretary shall—

(1) close all military installations recommended for closure by the Commission on Base Realignment and Closure in the report transmitted to the Secretary pursuant to the charter establishing such Commission;

(2) realign all military installations recommended for realignment by such Commission in such report; and

(3) initiate all such closures and realignments no later than September 30, 1991, and complete all such closures and realignments no later than September 30, 1995, except that no such closure or realignment may be initiated before January 1, 1990.

SEC. 202. CONDITIONS

(a) IN GENERAL.—The Secretary may not carry out any closure or realignment of a military installation under this title unless—

(1) no later than January 16, 1989, the Secretary transmits to the Committees on Armed Services of the Senate and the House of Representatives a report containing a statement that the Secretary has approved, and the Department of Defense will implement, all of the military installation closures and realignments recommended by the Commission in the report referred to in section 201(1);

(2) the Commission has recommended, in the report referred to in section 201(1), the closure or realignment, as the case may be, of the installation, and has transmitted to the Committees on Armed Services of the Senate and the House of Representatives a copy of such report and the statement required by section 203(b)(2); and

(3) the Secretary of Defense has transmitted to the Commission the study required by section 206(b).

Reports.

(b) **JOINT RESOLUTION.**—The Secretary may not carry out any closure or realignment under this title if, within the 45-day period beginning on March 1, 1989, a joint resolution is enacted, in accordance with the provisions of section 208, disapproving the recommendations of the Commission. The days on which either House of Congress is not in session because of an adjournment of more than 3 days to a day certain shall be excluded in the computation of such 45-day period.

(c) **TERMINATION OF AUTHORITY.**—The authority of the Secretary to carry out any closure or realignment under this title shall terminate on October 1, 1995.

SEC. 203. THE COMMISSION

(a) **MEMBERSHIP.**—The Commission shall consist of 12 members appointed by the Secretary of Defense.

(b) **DUTIES.**—The Commission shall—

Reports.

(1) transmit the report referred to in section 201(1) to the Secretary no later than December 31, 1988, and shall include in such report a description of the Commission's recommendations of the military installations to which functions will be transferred as a result of the closures and realignments recommended by the Commission; and

Reports.

(2) on the same date on which the Commission transmits such report to the Secretary, transmit to Committees on Armed Services of the Senate and the House of Representatives—

(A) a copy of such report; and

(B) a statement certifying that the Commission has identified the military installations to be closed or realigned by reviewing all military installations inside the United States, including all military installations under construction and all those planned for construction.

(c) **STAFF.**—Not more than one-half of the professional staff of the Commission shall be individuals who have been employed by the Department of Defense during calendar year 1988 in any capacity other than as an employee of the Commission.

SEC. 204. IMPLEMENTATION

(a) **IN GENERAL.**—In closing or realigning a military installation under this title, the Secretary—

(1) subject to the availability of funds authorized for and appropriated to the Department of Defense for use in planning and design, minor construction, or operation and maintenance and the availability of funds in the Account, may carry out actions necessary to implement such closure or realignment, including the acquisition of such land, the construction of such replacement facilities, the performance of such activities, and the conduct of such advance planning and design as may be required to transfer functions from such military installation to another military installation;

Community
development.

(2) subject to the availability of funds authorized for and appropriated to the Department of Defense for economic adjustment assistance or community planning assistance and the availability of funds in the Account, shall provide—

(A) economic adjustment assistance to any community located near a military installation being closed or realigned; and

(B) community planning assistance to any community located near a military installation to which functions will be transferred as a result of such closure or realignment, if the Secretary determines that the financial resources available to the community (by grant or otherwise) for such purposes are inadequate; and

Environmental
protection.
Waste disposal.
Hazardous
materials.

(3) subject to the availability of funds authorized for and appropriated to the Department of Defense for environmental restoration and the availability of funds in the Account, may carry out activities for the purpose of environmental restoration, including reducing, removing, and recycling hazardous wastes and removing unsafe buildings and debris.

(b) **MANAGEMENT AND DISPOSAL OF PROPERTY.**—(1) The Administrator of General Services shall delegate to the Secretary, with respect to excess and surplus real property and facilities located at a military installation closed or realigned under this title—

(A) the authority of the Administrator to utilize excess property under section 202 of the Federal Property and Administrative Services Act of 1949 (40 U.S.C. 483);

(B) the authority of the Administrator to dispose of surplus property under section 203 of that Act (40 U.S.C. 484); and

(C) the authority of the Administrator to grant approvals and make determinations under section 13(g) of the Surplus Property Act of 1944 (50 U.S.C. App. 1622(g)).

(2)(A) Subject to subparagraph (B), the Secretary shall exercise authority delegated to the Secretary pursuant to paragraph (1) in accordance with—

(i) all regulations in effect on the date of the enactment of this title governing utilization of excess property and disposal of surplus property under the Federal Property and Administrative Services Act of 1949; and

(ii) all regulations in effect on the date of the enactment of this title governing the conveyance and disposal of property under section 13(g) of the Surplus Property Act of 1944 (50 U.S.C. App. 1622(g)).

(B) The Secretary, after consulting with the Administrator of General Services, may issue regulations that are necessary to carry out the delegation of authority required by paragraph (1).

(C) The authority required to be delegated by paragraph (1) to the Secretary by the Administrator of General Services shall not include the authority to prescribe general policies and methods for utilizing excess property and disposing of surplus property.

(D) Before any action may be taken with respect to the disposal of any surplus real property or facility located at any military installation to be closed or realigned under this title, the Secretary shall consult with the Governor of the State and the heads of the local governments concerned for the purpose of considering any plan for the use of such property by the local community concerned.

State and local
governments.

(E) The provisions of this paragraph and paragraph (1) are subject to paragraphs (3) and (4).

(3) Before any action is taken with respect to the disposal or transfer of any real property or facility located at a military installation to be closed or realigned under this title, the Secretary shall notify all departments and other instrumentalities (including nonappropriated fund instrumentalities) within the Department of Defense of the availability of such property or facility, or portion thereof, and may transfer such property, facility, or portion, without reimbursement, to any such department or instrumentality. In carrying out this paragraph, the Secretary shall give a priority, and shall transfer, to any such department or other instrumentality that agrees to pay fair market value for the property or facility, or portion thereof. For purposes of this paragraph, fair market value shall be determined on the basis of the use of the property or facility on December 31, 1988. This paragraph shall take precedence over any other provision of this title or other provision of law with respect to the disposal or transfer of real property or facility located at a military installation to be closed or realigned under this title.

(4)(A) Except as provided in subparagraph (B), all proceeds—
(i) from any transfer under paragraph (3); and
(ii) from the transfer or disposal of any other property or facility made as a result of a closure or realignment under this title,
shall be deposited into the Account established by section 207(a)(1).

(B) In any case in which the General Services Administration is involved in the management or disposal of such property or facility, the Secretary shall reimburse the Administrator of General Services from the proceeds of such disposal, in accordance with section 1535 of title 31, United States Code, for any expenses incurred in such activities.

(c) **APPLICABILITY OF OTHER LAW.**—(1) The provisions of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) shall not apply to—

(A) the actions of the Commission, including selecting the military installations which the Commission recommends for closure or realignment under this title, recommending any military installation to receive functions from an installation to be closed or realigned, and making its report to the Secretary and the committees under section 203(b); and

(B) the actions of the Secretary in establishing the Commission, in determining whether to accept the recommendations of the Commission, in selecting any military installation to receive functions from an installation to be closed or realigned, and in transmitting the report to the Committees referred to in section 202(a)(1).

(2) The provisions of the National Environmental Policy Act of 1969 shall apply to the actions of the Secretary (A) during the process of the closing or realigning of a military installation after such military installation has been selected for closure or realignment but before the installation is closed or realigned and the functions relocated, and (B) during the process of the relocating of functions from a military installation being closed or realigned to another military installation after the receiving installation has been selected but before the functions are relocated. In applying the provisions of such Act, the Secretary shall not have to consider—

(i) the need for closing or realigning a military installation which has been selected for closure or realignment by the Commission;

(ii) the need for transferring functions to another military installation which has been selected as the receiving installation; or

(iii) alternative military installations to those selected.

Claims.

(3) A civil action for judicial review, with respect to any requirement of the National Environmental Policy Act of 1969 to the extent such Act is applicable under paragraph (2), or with respect to any requirement of the Commission made by this title, of any action or failure to act by the Secretary during the closing, realigning, or relocating referred to in clauses (A) and (B) of paragraph (2), or of any action or failure to act by the Commission under this title, may not be brought later than the 60th day after the date of such action or failure to act.

SEC. 205. WAIVER

The Secretary may carry out this title without regard to—

(1) any provision of law restricting the use of funds for closing or realigning military installations included in any appropriation or authorization Act; and

(2) the procedures set forth in sections 2662 and 2687 of title 10, United States Code.

SEC. 206. REPORTS

(a) **IN GENERAL.**—As part of each annual budget request for the Department of Defense, the Secretary shall transmit to the appropriate committees of Congress—

(1) a schedule of the closure and realignment actions to be carried out under this title in the fiscal year for which the request is made and an estimate of the total expenditures required and cost savings to be achieved by each such closure and realignment and of the time period in which these savings are to be achieved in each case, together with the Secretary's assessment of the environmental effects of such actions; and

(2) a description of the military installations, including those under construction and those planned for construction, to which functions are to be transferred as a result of such closures and realignments, together with the Secretary's assessment of the environmental effects of such transfers.

(b) **STUDY.**—(1) The Secretary shall conduct a study of the military installations of the United States outside the United States to determine if efficiencies can be realized through closure or realignment of the overseas base structure of the United States. Not later than October 15, 1988, the Secretary shall transmit a report of the findings and conclusions of such study to the Commission and to the Committees on Armed Services of the Senate and the House of Representatives. In developing its recommendations to the Secretary under this title, the Commission shall consider the Secretary's study.

(2) Upon request of the Commission, the Secretary shall provide the Commission with such information about overseas bases as may be helpful to the Commission in its deliberations.

(3) The Commission, based on its analysis of military installations in the United States and its review of the Secretary's study of the overseas base structure, may provide the Secretary with such comments and suggestions as it considers appropriate regarding the Secretary's study of the overseas base structure.

SEC. 207. FUNDING

(a) **ACCOUNT.**—(1) There is hereby established on the books of the Treasury an account to be known as the "Department of Defense Base Closure Account" which shall be administered by the Secretary as a single account.

(2) There shall be deposited into the Account—

(A) funds authorized for and appropriated to the Account with respect to fiscal year 1990 and fiscal years beginning thereafter;

(B) any funds that the Secretary may, subject to approval in an appropriation Act, transfer to the Account from funds appropriated to the Department of Defense for any purpose, except that such funds may be transferred only after the date on which the Secretary transmits written notice of, and justification for, such transfer to the appropriate committees of Congress; and

(C) proceeds described in section 204(b)(4)(A).

(3)(A) The Secretary may use the funds in the Account only for the purposes described in section 204(a).

(B) When a decision is made to use funds in the Account to carry out a construction project under section 204(a)(1) and the cost of the project will exceed the maximum amount authorized by law for a minor construction project, the Secretary shall notify in writing the appropriate committees of Congress of the nature of, and justifica-

tion for, the project and the amount of expenditures for such project. Any such construction project may be carried out without regard to section 2802(a) of title 10, United States Code.

Reports.

(4) No later than 60 days after the end of each fiscal year in which the Secretary carries out activities under this title, the Secretary shall transmit a report to the appropriate committees of Congress of the amount and nature of the deposits into, and the expenditures from, the Account during such fiscal year and of the amount and nature of other expenditures made pursuant to section 204(a) during such fiscal year.

(5) Unobligated funds which remain in the Account after the termination of the authority of the Secretary to carry out a closure or realignment under this title shall be held in the Account until transferred by law after the appropriate committees of Congress receive the report transmitted under paragraph (6).

Reports.

(6) No later than 60 days after the termination of the authority of the Secretary to carry out a closure or realignment under this title, the Secretary shall transmit to the appropriate committees of Congress a report containing an accounting of—

(A) all the funds deposited into and expended from the Account or otherwise expended under this title; and

(B) any amount remaining in the Account.

SEC. 208. CONGRESSIONAL CONSIDERATION OF COMMISSION REPORT

(a) **TERMS OF THE RESOLUTION.**—For purposes of section 202(b), the term “joint resolution” means only a joint resolution which is introduced before March 15, 1989, and—

(1) which does not have a preamble;

(2) the matter after the resolving clause of which is as follows:

“That Congress disapproves the recommendations of the Commission on Base Realignment and Closure established by the Secretary of Defense as submitted to the Secretary of Defense on _____”, the blank space being appropriately filled in; and

(3) the title of which is as follows: “Joint resolution disapproving the recommendations of the Commission on Base Realignment and Closure.”

(b) **REFERRAL.**—A resolution described in subsection (a), introduced in the House of Representatives shall be referred to the Committee on Armed Services of the House of Representatives. A resolution described in subsection (a) introduced in the Senate shall be referred to the Committee on Armed Services of the Senate.

(c) **DISCHARGE.**—If the committee to which a resolution described in subsection (a) is referred has not reported such resolution (or an identical resolution) before March 15, 1989, such committee shall be, as of March 15, 1989, discharged from further consideration of such resolution, and such resolution shall be placed on the appropriate calendar of the House involved.

(d) **CONSIDERATION.**—(1) On or after the third day after the date on which the committee to which such a resolution is referred has reported, or has been discharged (under subsection (c)) from further consideration of, such a resolution, it is in order (even though a previous motion to the same effect has been disagreed to) for any Member of the respective House to move to proceed to the consideration of the resolution (but only on the day after the calendar day on which such Member announces to the House concerned the Member's intention to do so). All points of order against the resolution

(and against consideration of the resolution) are waived. The motion is highly privileged in the House of Representatives and is privileged in the Senate and is not debatable. The motion is not subject to amendment, or to a motion to postpone, or to a motion to proceed to the consideration of other business. A motion to reconsider the vote by which the motion is agreed to or disagreed to shall not be in order. If a motion to proceed to the consideration of the resolution is agreed to, the respective House shall immediately proceed to consideration of the joint resolution without intervening motion, order, or other business, and the resolution shall remain the unfinished business of the respective House until disposed of.

(2) Debate on the resolution, and on all debatable motions and appeals in connection therewith, shall be limited to not more than 10 hours, which shall be divided equally between those favoring and those opposing the resolution. An amendment to the resolution is not in order. A motion further to limit debate is in order and not debatable. A motion to postpone, or a motion to proceed to the consideration of other business, or a motion to recommit the resolution is not in order. A motion to reconsider the vote by which the resolution is agreed to or disagreed to is not in order.

(3) Immediately following the conclusion of the debate on a resolution described in subsection (a) and a single quorum call at the conclusion of the debate if requested in accordance with the rules of the appropriate House, the vote on final passage of the resolution shall occur.

(4) Appeals from the decisions of the Chair relating to the application of the rules of the Senate or the House of Representatives, as the case may be, to the procedure relating to a resolution described in subsection (a) shall be decided without debate.

(e) **CONSIDERATION BY OTHER HOUSE.**—(1) If, before the passage by one House of a resolution of that House described in subsection (a), that House receives from the other House a resolution described in subsection (a), then the following procedures shall apply:

(A) The resolution of the other House shall not be referred to a committee and may not be considered in the House receiving it except in the case of final passage as provided in subparagraph (B)(ii).

(B) With respect to a resolution described in subsection (a) of the House receiving the resolution—

(i) the procedure in that House shall be the same as if no resolution had been received from the other House; but

(ii) the vote on final passage shall be on the resolution of the other House.

(2) Upon disposition of the resolution received from the other House, it shall no longer be in order to consider the resolution that originated in the receiving House.

(f) **RULES OF THE SENATE AND HOUSE.**—This section is enacted by Congress—

(1) as an exercise of the rulemaking power of the Senate and House of Representatives, respectively, and as such it is deemed a part of the rules of each House, respectively, but applicable only with respect to the procedure to be followed in that House in the case of a resolution described in subsection (a), and it supersedes other rules only to the extent that it is inconsistent with such rules; and

(2) with full recognition of the constitutional right of either House to change the rules (so far as relating to the procedure of

that House) at any time, in the same manner, and to the same extent as in the case of any other rule of that House.

SEC. 209. DEFINITIONS

In this title:

(1) The term "Account" means the Department of Defense Base Closure Account established by section 207(a)(1).

(2) The term "appropriate committees of Congress" means the Committees on Armed Services and the Committees on Appropriations of the Senate and the House of Representatives.

(3) The terms "Commission on Base Realignment and Closure" and "Commission" mean the Commission established by the Secretary of Defense in the charter signed by the Secretary on May 3, 1988, and as altered thereafter with respect to the membership and voting.

(4) The term "charter establishing such Commission" means the charter referred to in paragraph (3).

(5) The term "initiate" includes any action reducing functions or civilian personnel positions but does not include studies, planning, or similar activities carried out before there is a reduction of such functions or positions.

(6) The term "military installation" means a base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the Secretary of a military department.

(7) The term "realignment" includes any action which both reduces and relocates functions and civilian personnel positions.

(8) The term "Secretary" means the Secretary of Defense.

(9) The term "United States" means the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, the Virgin Islands, American Samoa, and any other commonwealth, territory, or possession of the United States.

Approved October 24, 1988.

LEGISLATIVE HISTORY—S. 2749 (H.R. 4264):

HOUSE REPORTS: No. 100-1076 (Comm. of Conference); No. 100-563 (Comm. on Armed Services) and No. 100-753 (Comm. of Conference), both accompanying H.R. 4264.

CONGRESSIONAL RECORD, Vol. 134 (1988):

Apr. 26-29, May 2-5, 11, H.R. 4264 considered and passed House.

May 27, considered and passed Senate, amended, in lieu of S. 2355.

July 14, House and Senate agreed to conference report.

WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS, Vol. 24 (1988):

Aug. 3, Presidential veto message of H.R. 4264.

CONGRESSIONAL RECORD, Vol. 134 (1988):

Aug. 11, S. 2749 considered and passed Senate.

Oct. 3, considered and passed House, amended.

Oct. 12, Senate and House agreed to conference report to S. 2749.

Appendix B

Cultural Resources Programmatic Agreement

PROGRAMMATIC AGREEMENT
AMONG
DEPARTMENT OF THE ARMY
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, AND
THE NATIONAL CONFERENCE OF STATE HISTORIC PRESERVATION OFFICERS
CONCERNING
REALIGNMENT AND CLOSURE OF ARMY INSTALLATIONS
IN ACCORDANCE WITH
BASE CLOSURE AND REALIGNMENT ACT

WHEREAS, the Department of the Army (Army) is responsible for implementation of applicable portions of the Base Closure and Realignment Act of 1988 (P.L. 100-526), commonly known as the "BRAC" program; and

WHEREAS, the Army is proceeding with base realignment and closure actions, to include the realignment of functions and units, closure of installations, and disposal of surplus property in a manner consistent with the "Report of the Defense Secretary's Commission on Base Realignments and Closures," December 29, 1988 (Commission Report); and

WHEREAS, the Army has determined that its implementation of the BRAC program may have effects on properties included in and eligible for inclusion in the National Register of Historic Places (historic properties); and

WHEREAS, the Army has consulted with the Advisory Council on Historic Preservation (Council) and the National Conference of State Historic Preservation Officers (NCSHPO) pursuant to Section 800.13 of the regulations (36 CFR Part 800) implementing Sections 106 and 110(f) of the National Historic Preservation Act (NHPA) and Army Regulation 420-40, "Historic Preservation;"

NOW, THEREFORE, the Army, the Council, and the NCSHPO agree that the Army's implementation of the BRAC program shall be administered in accordance with the following stipulations, which will satisfy the Army's Section 106 and 110(f) responsibilities for all individual undertakings under the BRAC program.

Stipulations

The Army will ensure that the following measures are carried out.

I. Applicability

The terms of this Agreement are intended to apply to all Army installations which may be affected under the provisions of P.L. 100-526 (see Attachment 1), with the exception of the 52 Stand Alone Housing Sites that are variously located in Connecticut, Illinois, Maryland, Massachusetts, Missouri, New Jersey, New York, Pennsylvania, Rhode Island, Virginia, Washington, and Wisconsin. Those sites will be the subjects of individual consultation between the Army and the appropriate State Historic Preservation Officer (SHPO) in accordance with Section 800.4 and 800.5 of 36 CFR Part 800.

II. Areas of Potential Effects

Although some BRAC activities may induce changes in population distribution, traffic, and land use that extend beyond the particular facilities to be closed and parcels on which new construction will occur, the effect of these changes on historic properties is uncertain and in most cases is expected to be minor. Accordingly, the area of potential effects (36 CFR 800.2[c]) of a BRAC action shall be understood to be the area of the facility to be closed and/or constructed, unless there is compelling evidence that effects are likely to occur in a broader area. In cases of dispute over the area of potential effects of a BRAC action, the opinion of the Council will be binding on all parties to this Agreement.

III. NEPA and Preliminary Coordination with the SHPO

A. It is mutually understood that many of the terms of this Agreement will be carried out after the Army has complied with the National Environmental Policy Act (NEPA) and filed its Record of Decision (ROD). Nevertheless:

1. whenever it is feasible for the Army to carry out the terms of this Agreement prior to filing the ROD, the Army will do so; and

2. whenever the Army files a ROD on a BRAC action for which the terms of this Agreement have not yet been fully implemented, the Army will stipulate in the ROD that the NHPA has not yet been complied with and that no action will be taken which

would foreclose completion of the Army's responsibilities under the NHPA; and

3. the Army will ensure that no actions that could result in effects on historic properties are undertaken pursuant to a ROD until the terms of this Agreement have been carried out.

B. The Army will notify the appropriate SHPO at the earliest time possible of the nature and timing of the BRAC actions for individual installations and will provide the following information:

1. a description of the type and location of the undertaking.

2. currently available milestones for BRAC actions affecting the installation.

3. information available about historic properties at the installation.

C. The Army will coordinate the NEPA process with its NHPA activities. In accordance with the memorandum to all BRAC participants dated July 12, 1989 (Attachment 2), NEPA documentation for each facility will:

1. identify known historic properties and past studies;

2. identify the potential for historic properties to be affected by the BRAC process; and

3. identify the steps necessary for the Army to meet its Section 106 responsibilities under NHPA.

D. The Army will invite comments from affected SHPOs on Environmental Assessments (EA) and Draft Environmental Impact Statements (DEIS).

E. The Army shall provide a copy of this Agreement, its attachments, AR 420-40, 36 CFR 800, and the materials listed in Stipulation IX of this Agreement to appropriate commanders.

IV. IDENTIFICATION AND EVALUATION

A. Identification

1. Based on the assembly of existing information through the NEPA process, the Army will consult with individual SHPOs and make a reasonable and good faith effort to identify

historic properties located on installations under Army control that will be affected by BRAC.

2. When existing information is not adequate for identifying significant properties, the Army will undertake installation-specific field surveys in accordance with appropriate professional standards as defined in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 44716-42; hereafter "Standards and Guidelines"), except as provided in Attachment 3.

3. The Army will develop priorities for undertaking identification and evaluation of historic properties on individual installations. These priorities will be determined by:

- a. the specific nature and timing of the undertaking proposed;
- b. the nature and extent of the individual Army installation and its land use history;
- c. the potential nature and extent of historic properties; and
- d. possible constraints on field investigations, such as ranges, impact and contaminated areas, safety zones and hazardous materials.

4. All identification and evaluation activities will be carried out in consultation with the appropriate SHPO. In addition, the Army and the SHPOs will assemble and exchange information as it becomes available on the location and evaluation of historic properties.

5. The Army will ensure the identification of records and objects related to the historic significance of properties to be disposed of. Each installation will be required to identify extant historic records and related historic objects.

6. Throughout the planning and implementation of the BRAC program, the Army will provide guidance to the field to ensure that historic properties are not inadvertently damaged, destroyed, or allowed to deteriorate.

B. Evaluation

The Army will determine the eligibility of properties for inclusion in the National Register in accordance with 36 CFR 800.4(c), and with reference to inventories and planning by the State, the Army's history and traditions, previous Army historic site surveys, and any thematic studies that may have been completed or are underway.

V. Determinations of Effect

A. The Army, in consultation with the appropriate SHPO, shall determine the effect of BRAC actions on historic properties in accordance with 36 CFR 800.5, applying the Criteria of Effect and Adverse Effect at 36 CFR 800.9.

B. Where the Army determines pursuant to 36 CFR 800.5 that an adverse effect may occur, then:

1. if the Army determines, in consultation with the SHPO and taking into account the comments, if any, of the interested persons identified at 36 CFR 800.5(e)(1), that it is appropriate to apply the standard mitigation measures set forth in Attachment 4, the Army may provide the SHPO and the Council with sufficient documentation to support this determination, advise them that it intends to carry out the specified measures, and request their concurrence within 15 days. If the Council and the SHPO concur within 15 days of their receipt of such documentation, the Army shall carry out the standard mitigation measures it has determined to be appropriate. Failure by the Council or SHPO to respond within the specified time period shall be taken to evidence that party's concurrence. Should the Council or SHPO disagree with the Army's determination, the Army will undertake consultation in accordance with 36 CFR 800.5(e).

2. if the Army and the SHPO, taking into account the comments, if any, of the interested persons identified at 36 CFR 800.5(e)(1), agree on a program to avoid, minimize, or mitigate the adverse effect, the Army may provide the Council with sufficient documentation to support this determination and request its concurrence within 30 days. If the Council concurs within 30 days of its receipt of such documentation, the Army shall carry out the program. Failure by the Council to respond within the specified time period shall be taken to evidence the Council's concurrence. Should the Council object to the program, the Army will undertake consultation in accordance with 36 CFR 800.5(e).

3. if the Army determines that neither paragraph 1 nor paragraph 2 above is applicable, the Army will undertake consultation in accordance with 36 CFR 800.5(e).

VI. Treatment and Management.

A. The Army will ensure that the effects of BRAC actions on historic properties are treated in accordance with the determinations and agreements reached pursuant to Stipulation V.

B. For those installations or portions of installations which will remain under Army control, the Army will develop

treatment and management plans to ensure that properties affected by BRAC are incorporated into installation Historic Preservation Plans (HPP) in accordance with AR 420-40, and shall create such HPPs should they not presently exist. All such HPPs shall be developed or amended to include properties affected by BRAC within a reasonable period of time following the date of this Agreement, not to exceed the September 30, 1995 date for completion of BRAC actions as specified in P.L. 100-526.

C. For those installations of which the Army will dispose, the Army will work with the local re-use committees, appropriate SHPOs and other interested parties to develop treatments and/or management plans to ensure compatible reuse.

D. Notwithstanding any other provision of this Agreement, the Army may undertake documentation of historic structures in a manner consistent with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation (48 FR 44730-34) prior to making a determination or reaching an agreement pursuant to Stipulation V, if the Army judges that such documentation is likely to be part of a mitigation program that will subsequently be agreed to.

E. Notwithstanding any other provision of this Agreement, the Army may enter into agreements with SHPOs and the Council, seeking the concurrence of other interested persons, if any, establishing processes for the identification, evaluation, treatment and management of historic properties that may be subject to effect by a BRAC action, in lieu of identifying such properties and establishing specific treatment or management plans for them prior to making a decision regarding such an action, where:

1. the precise nature, schedule, location or design of the action is uncertain, and

2. the Army, SHPO, and Council agree that the effects of the action are likely to be relatively minor, or affect properties whose treatment or management will require the application of routine procedures.

VII. Interim Protection, Records Retention, and Long Term Curation

A. The Army will notify the appropriate commanders of the need for interim protection of identified and potential historic properties to ensure that deferred maintenance or other management decisions do not adversely effect the integrity of these properties. Important architectural elements will be identified to ensure future appropriate disposal.

B. The Army will consult with the SHPO on terms of curation and disposition of historical documents, drawings, photographs, reports, and archeological materials generated by BRAC studies.

VIII. Public Involvement

A. The Army will ensure that the activities of the local re-use committees will be coordinated, as appropriate, with activities carried out under this Agreement.

B. The Army and the appropriate SHPO will consider the need for additional consulting parties consistent with the Council's publication, "Public Participation in Section 106 Review: A Guide for Agency Officials" (Advisory Council on Historic Preservation, 1989).

C. To the extent possible, public participation shall be coordinated with public participation under NEPA.

IX. Standards and Guidelines

Standards and guidelines for implementing this Agreement include, but are not limited to:

Army Regulation (AR) 420-40: Historic Preservation (Department of the Army, 15 May 1984);

36 CFR Part 800: Protection of Historic Properties;

The Section 110 Guidelines: Guidelines for Federal Agency Responsibilities under Sec. 110 of the National Historic Preservation Act (53 FR 4727-4746);

The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 44716-42);

The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (National Park Service, 1983);

Identification of Historic Properties: a Decisionmaking Guide for Managers (Advisory Council on Historic Preservation, 1988);

Public Participation in Section 106 Review: A Guide for Agency Officials (Advisory Council on Historic Preservation, 1989); and

Preparing Agreement Documents (Advisory Council on
Historic Preservation, 1989).

X. Dispute Resolution

A. Should a SHPO or an interested person identified at 36 CFR 800.5(e)(1) object to the Army's implementation of any part of this Agreement, the Army shall consult with the objecting party to resolve the objection. If the Army determines that the objection cannot be resolved, the Army shall forward all documentation relevant to the dispute to the Council. Within 30 days after receipt of all pertinent documentation, the Council will either:

1. provide the Army with recommendations, which the Army will take into account in reaching a final decision regarding the dispute; or

2. notify the Army that it will comment pursuant to 36 CFR 800.6(b), and proceed to comment. Any Council comment provided in response to such a request will be taken into account by the Army in accordance with 36 CFR 800.6(c)(2) with reference to the subject of the dispute.

B. Any recommendation or comment provided by the Council will be understood to pertain only to the subject of the dispute; the Army's responsibility to carry out all actions under this Agreement that are not the subject of the dispute will remain unchanged.

C. Should a member of the public object to any measure carried out under the terms of this Agreement, or the manner in which such a measure is implemented, the Army shall take the objection into account and consult as needed with the objecting party, the SHPO, and the Council to resolve the objection.

XI. Amendments

Any party to this Agreement who determines that some portion of the Agreement cannot be met must immediately request the other signatories to consider an amendment or addendum to this Agreement which would ensure full compliance. Such an amendment or addendum shall be executed in the same manner as the original Agreement. Should any party to this Agreement be unable to maintain a level of effort sufficient to carry out the terms of

this Agreement, that party shall notify the others and seek an appropriate amendment.

Execution and implementation of this Programmatic Agreement evidences that the Army has satisfied its responsibilities under Sections 106 and 110(f) of the National Historic Preservation Act for all individual undertakings of the program.

DEPARTMENT OF THE ARMY

BY: Paul W. Johnson (date) 5 FEB. 1990
Paul W. Johnson, Deputy Assistant Secretary of the Army
(Installations and Housing)

NATIONAL CONFERENCE OF STATE HISTORIC PRESERVATION OFFICERS

BY: F. Lawrence Oaks (date) 2-5-90
F. Lawrence Oaks, President

ADVISORY COUNCIL ON HISTORIC PRESERVATION

BY: John F. W. Rogers (date) Feb. 5, 1990
John F. W. Rogers, Chairman